

CROP POST HARVEST PROGRAMME

**Overcoming informational constraints:
improving horticultural marketing and technical information flows to
smallholders**

R 7151 (ZB 0126)

ZIMBABWE COUNTRY REPORT

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R7151 Crop Post Harvest Research Programme

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Executive Summary

It is now widely accepted that improved flows of information are critical to the successful development of agricultural markets in Sub-Saharan Africa. However, there is considerable debate not only on how marketing information should be made available to smallholder agricultural producers, but also on what information should be provided. These two questions are related, in that practical difficulties in the provision of certain types of information may influence the decision on what information it is best to provide. This report reviews recent literature on provision of marketing information in African (and other developing) countries, which finds that attempts to provide current market price information to agricultural producers and traders through state-run market information systems have been plagued with difficulties. These relate not only to the capacity of state-run systems to gather and disseminate reliable information in a timely and efficient manner, but also to the nature of the markets themselves. Prices in horticultural markets are particularly volatile from day to day, whilst product prices in certain types of markets can change significantly within the course of a day, making meaningful price reporting extremely difficult. Given these problems, some authors have suggested that it might be more profitable to provide other types of marketing information to producers, for example information on alternative marketing channels and their respective terms of business, quality requirements etc., and (past and expected) trends in particular markets.

The report then describes a recent attempt to provide both current price and broader marketing information to smallholder horticultural producers in two districts of north-eastern Zimbabwe. This pilot programme has been coordinated by the national extension agency, Agritex, in collaboration with the NGO Veco (formerly Coopibo). It has focused on nine sites - four smallholder irrigation schemes in Mudzi district, one in Mutoko and four groups of rainfed horticultural producers in Mutoko.

Horticultural production is more advanced in Mutoko than in Mudzi, with larger volumes and a wider range of crops grown. Whilst much produce grown in Mudzi is sold on local markets, producers in Mutoko are heavily dependent on Mbare Musika producers' market in Harare, especially for sales of tomatoes. They, therefore, face highly unpredictable prices and problems of seasonal gluts. In both areas, the predominance of a few crops has led to problems with pest and disease build-ups, especially red spider mite affecting tomatoes. It was, therefore, hoped that better marketing information could assist farmers to:

- Access alternative, better-paying marketing channels, most notably the major independent wholesalers in Harare;
- Plan the planting of their crops so as to sell when produce is scarce, not plentiful;
- Diversify into production of alternative crops offering attractive market opportunities.

The pilot work proceeded according to the following stages:

- Identification of Farmers' Existing Knowledge and Information Requirements
- Information Gathering (Marketing Research)
- Dissemination of Findings

- Evaluation of Pilot Programme and its Impact.

Following PRA exercises at the nine sites in February (Mudzi) and April (Mutoko) 1999, the following activities were undertaken by Agritex staff (led by a team based at headquarters in Harare) and staff from Veco:

- An investigation of market opportunities at the weekly market at Nyamapanda border crossing, where buyers from Mozambique come on foot to purchase a variety of products, including horticultural products;
- Establishment of links with one seed and one chemical supplier, who met producers at target sites in both districts and, in the case of the seed supplier, provided producers at some sites with product samples to be grown on demonstration plots;
- Organisation of a visit (in September 1999) to the two main independent wholesalers in Harare, in which two representatives from most sites participated. Those present learnt about the terms on which the wholesalers concerned do business and about some of the seasonal market opportunities that exist for particular commodities.
- Preparation of an information pack, provided to all extension officers in the two districts, that included information on: seasonal market opportunities for particular horticultural commodities, crop selection and appropriate crop combinations for use in irrigation rotations, production notes for new / unfamiliar horticultural crops, and details of a range of input suppliers.
- Farmers at some sites in Mutoko were trained in the production of summer tomatoes (as the higher temperatures and greater humidity raise the incidence of pests and diseases) and in group dynamics.
- Collection of current price information on local, provincial and national horticultural markets, and dissemination of this information within the districts through Agritex structures, farmer organisations and on the radio.

In late October 1999, an evaluation was carried out by the authors of this report to assess the effectiveness of the horticultural marketing extension activities to date and to identify any initial impacts from the provision of marketing information. Each of the nine sites was visited and two group questionnaires administered (generally one with those men present and one with the women). In addition, informal discussions were held with the relevant extension officers, with their district managers and with Veco staff.

Although the original intention had been to disseminate most of the information to producers at the nine sites by early April, in time to influence their planting decisions for the main winter season, little information was actually received by then. More information had been received by August / September and in some cases this had influenced the choice of crops in the ground at the time of the evaluation. The extent to which the information supplied to extension officers had been shared with farmers depended on the confidence of the individual officer in handling it.

Considerable interest had been generated by the visits to the independent wholesalers and by the contacts with input suppliers. However, there was wide variation in the extent to which the information gathered during the visit to the wholesalers had been disseminated to the other farmers at the sites. At three of the irrigation schemes in Mudzi, members hold

a weekly meeting with the extension officer responsible for their ward. These meetings provided an excellent opportunity for feedback and information sharing. By contrast, in the less organised groupings in Mutoko, information flows amongst farmers were more problematic, with some suspicions that a few dominant members (generally men) kept the most useful information to themselves.

Regular dissemination of current price information had generally proved problematic. In Mudzi, prices could be relayed to irrigation scheme members at the regular weekly meetings, but only as and when such information was received. In Mutoko, although the Agritex district office was extremely creative in search of ways to get price information to field staff, transport and other difficulties meant that there were inevitably delays in getting prices to farmers.

A few of the respondents in Mutoko had sold produce to one or both of the main independent wholesalers during the preceding couple of months. In two cases this was prompted by the organised group visit, as the farmers concerned then realised that they already had crops in the ground that they could sell through the new channels. In the third case, the choice of channel was suggested by a contact in Harare, independent of the extension programme. All sellers were happy with the prices they received. However, there was doubt as to whether the prices offered by the independent wholesalers are always so attractive relative to Mbare prices, whilst the ability of poorer producers to supply to them is limited by their quality requirements, the payment procedures that they follow and by transport constraints. Despite these reservations, several groups stated their intention to target the independent wholesalers with future harvests.

In terms of other changes already made, three groups had prepared tomatoes for summer production. Many other respondents expressed an interest in growing a variety of new crops, but invariably needed more technical advice before being confident to translate this interest into action.

Conversations with both producers and extension officers suggested that the programme is encouraging a change in thinking - towards greater market orientation - on the part of some groups who had previously treated marketing as merely an add-on to their production activities. In irrigation schemes in Mudzi, the information supplied to extension officers has assisted moves towards greater farmer participation in the planning of the cropping schedule. In Mutoko several respondents noted with appreciation that Agritex staff have started to pay attention to horticulture - in keeping with its importance to their livelihood strategies.

Perhaps not surprisingly, given the identity of the evaluators, respondents were unanimous that Agritex and VECO should continue to supply marketing information. Most respondents also expressed a clear preference for information on crops and market opportunities, rather than current price information, if Agritex had to focus on one or the other. A common refrain was that "You have to have the right crop at the right time if you want to get a good price." Respondents noted that current price information is often slow to arrive and does not tell them what prices they are likely to receive, as prices are notoriously volatile, particularly at Mbare. Nevertheless, a few interesting examples were encountered of the value of current price information, including producers in Mudzi using price information from local markets to inform their price setting when buyers came to their irrigation schemes to buy direct and "sharp" farmers gradually converting current

price information into historical price information over time, so as to inform planting decisions.

Although valuing marketing advice, respondents emphasised that they also still needed production advice from Agritex - particularly if they were to successfully exploit the new market opportunities that they were being informed about. The evaluation also highlighted the need for some additional training for Agritex extension officers, so as to build their confidence in using the new information provided to them.

The Marketing section of Agritex intends to continue and expand the marketing extension activities piloted in Mutoko and Mudzi, broadening their coverage within these two districts and then taking the experience gained to other districts and provinces. The initial evaluation suggests that marketing extension efforts should focus on highlighting market opportunities - and equipping farmers to respond to them - not just on gathering and disseminating current market prices. Price collection should continue, including decentralised initiatives to monitor local markets, but the emphasis within dissemination activities should be less on current prices and more on the periodic provision of historical price analysis. This is easily within the capability of the Agritex marketing section, which already enters the weekly price information that it gathers onto a spreadsheet. Such information would usefully complement the information made available by the major independent wholesalers on seasonal market opportunities for various horticultural products.

As well as building the confidence of Agritex extension officers in handling marketing issues, there is a need to encourage a greater market orientation amongst farmers. This may be done through promotion of activities such as record keeping and the participatory production of price charts (effectively getting farmers to compile their own historical price information), causing them to reflect more on the returns that they receive from their various production activities. Farmers themselves also suggested that more "look and learn" tours be arranged, so that they could learn from the experiences of more market-oriented peers. In this the role of agencies such as Agritex and Veco should chiefly be one of facilitation, however, with participants paying towards the cost of the tours.

One of the critical questions for the pilot programme is that of sustainability. The pilot activities in Mutoko and Mudzi have received around £9,000 in recurrent cost support from Project R7151. Much of this has been used to fund the field activities of Harare-based Agritex staff and the Mashonaland East horticultural subject matter specialist whilst the basic approach was being piloted. There is some confidence that the work within the two districts can now continue largely within the ongoing Agritex programme and budget. However, even if steps are taken to minimise the input of Harare-based staff, some "pump-priming" resources are likely to be required for the initial establishment of a marketing extension programme in a new area. On the other hand, once local officers understand the basic approach, there are considerable economies of scale in collection of relevant information by the Marketing section in Harare and provision of this information to provinces and districts.

In order to generate firmer conclusions on the viability of marketing extension programmes in Zimbabwe and elsewhere in Sub-Saharan Africa, the continuation of the programme without external support (or possibly with a much reduced contribution from an extension of Project R7151) should be monitored. However, the initial finding of the

pilot programme is that, in the Zimbabwe case, the extension service does provide a viable vehicle for dissemination of marketing information to smallholder horticultural producers.

Finally, it is worth remembering that, whilst improved information flows are valuable, farmers still have to overcome other constraints to enhanced production and marketing activity. In Mutoko and Mudzi, perhaps the most important of these are access to transport and problems with produce quality (at both pre- and post-harvest stages). Both are exacerbated by capital constraints. It is too early to say how widely the benefits from increased information provision will be spread, but it seems inevitable that some farmers (the more enterprising, who are rarely the poorest) will benefit more than others.

1 Introduction

This Country Report describes an action research exercise to overcome horticultural market information constraints in Mutoko and Mudzi Districts in Zimbabwe. This forms part of a wider project in Sub-Saharan Africa conducted by Wye College, University of London together with other UK and overseas collaborators. Apart from Zimbabwe, the project also covers Ghana and Tanzania.

Other project documents have been produced as part of Project R7151¹:

- an abbreviated version of this report is included in the separate project Summary Report;
- the background to the full project, containing the full literature review, concepts and methodological approach are contained in the Literature Review, also published separately;
- there are also separate extended Country Reports for Ghana and Tanzania².

1.1 Background

Efficient and equitable performance of markets requires that relevant information be accessible to a wide range of current and potential market participants. Information is required by traders for spatial and temporal arbitrage decisions, by producers for production and marketing decisions, and by government for policy making, especially with regard to food security early warning functions. Where information flows are poor, the costs and risks of marketing activity are high, with negative consequences for both producers and consumers. Moreover, those with superior access to information may be able to garner monopoly profits and to expand market share at the expense of the less well informed.

The geographical dispersion of smallholder producers and the under-developed nature of roads and communications infrastructure in many rural areas raises search costs for both producers and agricultural traders, whilst the isolation of many smallholders from major markets weakens their bargaining position with traders who do come to their areas. The isolation of producers in remoter areas also weakens their competitive position in major markets *vis-à-vis* producers (smallholders or commercial) in more accessible or better served areas. Thus, access to marketing information is a vital component of the competitiveness of different producer and trading groups within and across nations.

It is now widely accepted that improved flows of information are critical to the successful development of agricultural markets in Sub-Saharan Africa. However, there is considerable debate not only on how marketing information should be made available to smallholder agricultural producers, but also on what information should be provided. These two questions are related, in that practical difficulties in the provision of certain types of information may influence the decision on what information it is best to provide. As Robbins (1998) has argued, the most appropriate design for a market information system will vary according to the needs and circumstances, including the organisational capacity of different actors, in different countries.

¹ Available on request from n.poole@wye.ac.uk

² Also available on request from k.lynch@kingston.ac.uk

The purpose of Project 7151 is to:

“develop mechanisms to increase market awareness and market orientation of targeted [horticultural] farmers and traders”.

The Ghana and Tanzania studies within Project 7151 emphasise the improvement of information flows through better coordination between producers and traders, with consideration given to the potential role that local government can play in encouraging this. This Zimbabwe study examines the potential for a reasonably well-functioning government agency, in this case Agritex, to provide marketing information to smallholders. It also asks what type of information should be provided by such an agency.

1.2 Outline of the Zimbabwe Study

The Zimbabwe study has taken the form of action research. Previous investigations into smallholder horticultural production and marketing in Zimbabwe (e.g. Boyd, Turner et al. (1997), Gakonyo (1997), Masanganise (1995), Mabaya (1998)) had identified provision of market information as a priority area for intervention to enhance the capacity of smallholder producers to participate in national horticultural markets. Following an initial project visit to Zimbabwe by Colin Poulton in September 1998, it was decided that Agritex should provide information to smallholder horticultural producers in two pilot areas, with the activities and impact of the programme being monitored to draw lessons relevant both to other parts of Zimbabwe and to other countries in Sub-Saharan Africa.

The pilot work proceeded according to the following stages:

- Identification of Farmers' Existing Knowledge and Information Requirements
- Information Gathering (Marketing Research)
- Dissemination of Findings
- Evaluation of Pilot Programme and its Impact

Having briefly reviewed the theoretical foundations of the work (based on the project literature review), this report documents:

- the intended and actual activities carried out at each stage of the work
- the findings of the initial evaluation exercise carried out at the end of October 1999.

2 Theoretical Foundations

2.1 Different Types of Marketing Information

In a recent review of the theory and practice of marketing information provision in developing countries, Shepherd (1997) distinguishes:

- *market* information, which basically consists of data on prices and (sometimes) quantities;
- *marketing* information - “a much wider concept, which is likely to include details on potential market channels, payment requirements, packaging, quality and a

whole host of information required by a producer to make a successful sale, including market information" (p5).

He then further disaggregates market information into:

- *current* - data on current prices prevailing, and quantities traded, in markets of various types (retail, wholesale, farm-level);
- *historical* - data compiled over a period of time and analysed to inform decisions about planting or storage, government planning and early warning.

Over the years, much effort has been devoted to the establishment of state-run market information services (MISs) that have had as a primary objective the provision of current price information to market participants³. In theory, such information is useful for informing farmers' selling decisions and for improving the efficiency of arbitrage. However, there are a number of problems with it, even in a well-run MIS. Of central concern to the current paper is that "prices move too rapidly for available information to serve as more than a guide to likely returns" (Shepherd 1997, p8). This is particularly so where crops are highly perishable, as is the case with much horticultural produce.

Historical market information, meanwhile, may be used to inform:

- planting decisions by farmers (which crops, when);
- strategic sales decisions (which markets to aim for);
- in the case of non-perishable commodities, storage decisions by both farmers and traders.

Of course, past performance of given crops and markets is not necessarily an accurate guide to future trends. Thus, ideally, historical price information should be supplemented by information on the expectations of key market informants as to immediate future prospects for different crops. In addition, it might profitably be supplemented by the following types of information, many of which fall under Shepherd's definition of *marketing* information:

- quality requirements and terms of contract of different marketing channels;
- historic quantity data for different crops (bought and sold) in different markets;
- estimated harvest, stocks in the system, imports and exports of the crop concerned, planned government / donor / NGO interventions (for storage decisions).

A major advantage of historical price information over current price information - particularly in African conditions - is that its usefulness is much less dependent on the timeliness of dissemination. Nevertheless, few MISs in developing countries to date have provided historical market information to market participants. Resource constraints mean that they have struggled simply to disseminate regular current price data. Any analysis that has been done has been at the aggregate level for the purposes of government planning and early warning.

³ Another objective has been the provision of information to government planning and food security early warning units. In practice, many MISs have been far more successful in achieving this second objective than in delivering timely current price information to market participants.

Provision of historical market information does require a certain degree of analysis. This, however, can be undertaken once by a central MIS office, then the resulting information distributed to intermediate or end users. By contrast, if current price information is to be collected and disseminated, there might be merit in the idea of decentralising this work (depending on the geographical coverage of the commodity systems in question) so as to reduce communication difficulties (Robbins 1998).

Finally, it should always be remembered that the additional benefits of extra information have to be compared with the costs of providing it.

2.2 Different Types of Markets

In addition to distinguishing different types of information, Shepherd also makes an important distinction between two types of markets:

- A) those that receive supplies throughout the day, such that prices remain fairly stable within the day and often from one day to the next;
- B) those where produce arrives before market opens and where the market closes once that produce has been sold. In such markets, prices normally start high, as many buyers compete for the best quality produce, but decline significantly by the end of the market day, as sellers try to offload their remaining produce so as to begin their journey home.

It is clear that reporting prices for a type B) market will be much more difficult than doing so for a type A) market.

2.3 MISs In Practice

From a theoretical point of view, Shepherd believes that "there are good arguments in favour of Market Information Services" (p7). However, he acknowledges that in practice there are numerous operational problems that have to be overcome before they bring benefits to farmers and traders. An FAO survey of 120 countries found 53 functioning MISs, devoted largely to the collection and dissemination of current price information. On the performance of these services, Shepherd concludes (p4):

"Unfortunately, the track record of such services around the world has not, on the whole, been very satisfactory. ... the vast majority of services cannot be considered to provide commercially useful information for farmers and traders."

Shepherd catalogues a range of problems with the practical data gathering exercise that is fundamental to the value of any MIS. One of the most intractable is that many developing country markets do not use standardised weights and measures. Instead of price adjustment, the weight of traditional measures (such as a bowl, bucket or pile) is often varied as market conditions change. This cannot be picked up reliably by MISs unless measures are weighed and prices converted to a per kilo basis (awkward logistically and prohibitively costly). Similar reporting problems arise as a result of differences in quality standards across individual deals, markets and over time.

There are also numerous practical problems impeding the dissemination of data, once collected. Two common channels of current price information dissemination are:

- through the agricultural / extension or general government administration. In this case, the information is transmitted in several stages, from the centre to the district and from there (in theory) to the farmer. The main problem with this route is the near inevitable delays, although improved telecommunications and e-mail technology should help.
- direct dissemination to market participants over the radio. The main problem with this route is the cost, especially where radio stations charge MIS offices commercial rates for air time.

Given the volatile nature of horticultural markets, any delay in dissemination reduces the value of the information to recipients. Shepherd comments (p17):

“... where markets are held daily for horticultural produce there is very little relevance for the farmer in prices of three days earlier.”

He advocates daily price dissemination in such circumstances. However, only 13 of the 53 MISs in the FAO survey managed daily price dissemination.

One that does is the Indonesian MIS, set up in 1978. Following initial discussions with farmers, it has made a particular effort to gather farm-gate price data on horticultural produce, especially vegetables. These are disseminated daily on the radio (national and local) as well as through a variety of other channels. Quarterly and annual summaries are also produced. It appears that the service is valued by farmers, although it does not appear to be widely used by traders, who “have their own information networks”.

The success of the Indonesian service lends support to the earlier observations of Schubert (1983):

“Previous experiences indicate that the improvement of agricultural market information services in developing countries presupposes the determined and continuous support of the development administration; it is associated with considerable expenditure of time and resources and requires a very systematic approach. ... their establishment requires a certain stage of development of infrastructure, educational level and administration.”

These considerations mean that we have to be cautious in embracing examples of success from Asia as potential models for Africa.

2.4 Misgivings About MISinformation

Shepherd (1997, p4) claims that there are “few dissenting voices” raised against the consensus that public MISs are potentially beneficial and, therefore, desirable. He notes one exception, namely Bowbrick (1988). Subsequently, Galtier and Egg (1998) have taken the side of Bowbrick. They quote (with approval) his scepticism concerning the basic value of price-based MISs: “it is the very relevance of the ‘price’ information which is put to question”. They also expand on many of the criticisms of MISs that have already been outlined above. An interesting observation concerns the usefulness of uninterpreted price information:

“A market participant having a suitable knowledge of markets will be well aware that an increase in price on such and such market is an indication of export

towards neighbouring countries, whereas on such and such other market it may indicate the arrival of a variety of better quality or the beginning of a shortage period."

None of this will be obvious to "outsiders" or newcomers to those markets. Galtier and Egg thus argue that MIS price data may not make markets more contestable to outsiders.

To test the usefulness of MISs, Galtier and Egg surveyed participants in the grain marketing system in Mali, where the MIS is held to work well at a technical level. They found that the price information supplied was of limited usefulness to any of the main market participants. Producers, for example, tend to know the prices in the most local markets, but, due to lack of transport, have few opportunities to sell outside these markets. Their freedom of manoeuvre is further limited by credit contracts that bind them to a particular buyer and which may even specify the price at which the produce is to be sold. Instead of a price-based MIS, Galtier and Egg suggest a "variable geometry" system tailored to the specific needs of the market in question. What they conceive of, in fact, is less an MIS than a range of possible interventions to overcome specific information-related problems in the functioning of markets.

2.5 Marketing Extension

An alternative approach for providing *marketing* information to farmers is the concept of marketing extension workers (MEWs) discussed by Lee (1984). According to Lee, the job of the MEW is "to advise farmers on what crop and variety to grow in the coming season and at what time." Advice should include new crops and market opportunities. Lee highlights off-season vegetable production as one area that MEWs might seek to promote. He believes that information on current prices and market arrivals should be supplemented by forecasts of market trends and expected price movements to assist farmers in their production planning. He also sees a role for MEWs in assisting coordination between farmers / groups and traders / processors, for example making arrangements for "regular and continuous shipment" of produce from farmers" (especially valuable for fruits and vegetables). Finally, MEWs working with groups can coordinate staggered planting and marketing, so as to avoid glutting local markets.

None of Lee's main examples of marketing extension services are taken from Africa. The replication of the MEW model there depends on the existence of a reasonably well functioning (and resourced) extension service and on the ability to train new or existing personnel in marketing skills. Lee argues that MEWs should not necessarily operate at village level. The next level up (district?) is probably more realistic, with a marketing "subject matter specialist" above this.

3 The Horticultural Sector in Zimbabwe

Horticulture has been an important growth area within Zimbabwean agriculture since Independence in 1980. Growth has occurred within both the large-scale commercial farming sector, supplying domestic and export markets (Muchena 1994), and the smallholder sector (Jackson, Turner et al. 1997). Factors encouraging increased horticultural production for the domestic market have included:

- rising demand in urban markets as a result of growing populations, rising urban incomes and changes in consumer tastes;

- declining profitability of maize production as a result of rising input prices and government policies restraining the maize producer price, which has encouraged both commercial producers and some smallholders to diversify their production activities (Rukuni 1994).

The existence of “push”, as well as “pull”, factors is important. Increases in supply have at least kept pace with growing domestic demand. The Harare market, in particular, is extremely competitive and smallholder suppliers have to compete with large quantities of high quality produce from commercial farmers⁴.

In general, smallholder horticultural production for market is concentrated in Mashonaland East and Manicaland Provinces and around Bulawayo, Gweru and Masvingo (Gordon 1997). Whilst nearly all communal households have a dryland vegetable garden or *dambo* to supply their own consumption requirements from May to September⁵, only households with better-than-average access to water are able to produce a surplus for market. These include households on irrigation schemes, those with fields next to a perennial river and households with sizeable *vlei* land (characterised by good soil and high water table).

3.1 Horticultural Markets in Harare

van Santen (1996), Boyd, Turner et al. (1997) and Gordon (1997) all describe the various marketing channels operating within Harare. The central horticultural market is Mbare Musika, which is divided into a producers’ and a wholesale market. Together these handle somewhere between 280,000 and 350,000 tons of produce per year from both commercial farmers and smallholders, with smallholders supplying perhaps 40% of this (Gordon 1997). In addition, there are 20 or so independent wholesalers located elsewhere in Harare⁶. These serve the “upper end” of the market, including the two main supermarket chains, hotels and fast food outlets. As some have regular contracts with their main customers, they also look to develop supply relationships with producers who can meet their demanding quantity and quality requirements.

⁴ Smallholders are often claimed to enjoy an advantage over commercial horticultural producers in the quality of labour input that they are able to supply (see, for example, (Chollet 1997). Cheap and motivated family labour is thought to be more likely to deliver the high levels of care in production, harvesting and handling that many horticultural crops require than is more expensive, less motivated hired labour. Set against this, however, commercial farmers enjoy numerous advantages, including better access to and/or control over water, inputs (seed, fertiliser and crop protection chemicals), transport, packaging, technical advice and marketing information. Better access to marketing information - through, *inter alia*, telephone contacts with buyers, the Commercial Farmers’ Union and input suppliers - is a major advantage in a competitive market such as Harare. Additionally commercial farmers may have the possibility of coordinating production (both within large estates and across different suppliers) to avoid the worst effects of periodic gluts of produce on the market.

⁵ Crops grown for own consumption include: tomatoes, rape and other leafy vegetables (e.g. tsunga, covo), cabbage, onions, carrots, sweet potatoes, various squashes and pumpkins. In addition to these exotic products, traditional fruits and vegetables provide a valuable source of nutrition and income for many households in communal areas. They include the fruits of certain tree species found in *miombo* woodland and semi-cultivated vegetables, which spring up with the first rains around December. As well as being eaten fresh - as relish with the staple food *sauza* - such plants are dried by many households and stored for consumption during the so-called “relish gap” period. Small quantities of these dried products are also sold in both local and urban markets.

⁶ (van Santen 1996) surveyed 14, of which Wholesale Fruiterers (Interfresh) was the largest. The largest eight firms were all considerably larger than the Mbare-based wholesalers and traded in a much wider range of crops.

Mbare Musika producers' market operates early each morning. Producers wishing to sell produce at the market have to book a bay the previous day (between 12.00 and 8.00 p.m.), so tend to arrive with their produce, which they then have to keep watch over through the night. (There are no storage facilities at the producers' market). Customers at the market include hawkers and other retailers, individual consumers and - if other supplies are short - both wholesalers from the neighbouring wholesale market and middlemen looking for good quality produce to take to the independent wholesalers. A range of different quality products is available, although the best quality produce tends to get snapped up early.

The wholesalers based at Mbare⁷ sell to retailers, to institutional customers and to smaller supermarkets, obtaining the majority of their supplies from commercial farmers and from middlemen who assemble produce in the main production areas for transportation to Harare. In addition some traders buy in this market to supply provincial markets such as Bulawayo and Gweru.

Being a type B) market, prices at Mbare producers' market can fluctuate wildly, both from day to day and even within a given day, according to the quantity of produce supplied⁸. Chollet (1997, p10) notes that "... in Mbare prices change from one day to the next and, often, from one hour to another". Whenever a commercial farmer sends produce to the market, it tends to depress prices obtaining for the product in question on that particular day. By contrast, prices in wholesale markets are somewhat more stable. For example, the two largest independent wholesalers set buying prices on a weekly basis.

Meanwhile, there are also significant intra-seasonal fluctuations in prices. These are partly due to production constraints, but also partly due to problems of market information. The incidence of frost in many commercial farming areas reduces the supply of certain crops during the winter season (May - August). This is the time when the majority of smallholders are engaged in horticultural production. However, most grow a very restricted range of crops (especially tomatoes, leafy vegetables, green mealies, cabbage and onions), leading to glutting. There is potential for smallholders not only to diversify what they produce, but also for some to vary their times of planting.

Only during times of shortage do middlemen from Harare venture into smallholder production areas in search of specific horticultural produce. As a result, most farmers selling to urban markets have to organise their own transport, whilst those middlemen who do operate in rural areas are felt by farmers to offer unjustifiably low prices (van Santen 1996). Boyd et. al. (1997) attribute the low level of assembly activity to lack of reliable surpluses and lack of trust and confidence, both between producers and traders and amongst producers. However, an alternative explanation is that the Harare market is generally a strong buyers' market, where there is little need for a specialist assembly function⁹.

⁷ (van Santen 1996) listed 40 such wholesalers, each dealing in 1-6 crops, not all of whom traded at the market every day.

⁸ For example, on the day on which one of the authors visited the market on a reconnaissance visit, the price of an 18kg box of tomatoes had opened at Z\$60, soon fallen to Z\$50 and by 09.00 hrs was down to Z\$30. When sellers were asked whether or not this was a good day, they replied that it was. The opening prices were much in excess of those that had prevailed the previous week, when, with much greater quantities of tomatoes being sent to market, most boxes were sold for around Z\$20.

⁹ An EU-funded project in Mashonaland East did try to establish "horticultural produce centres" (HPCs) where farmers could bring their produce, in the hope that the assembled volume of produce would be enough to attract traders from Harare, who would then compete on price for supplies. The venture was unsuccessful.

Boyd et. al. also comment on smallholders' preference for sending produce to target urban markets individually, rather than collectively. They note that there are hidden costs to collective marketing activity, including monitoring the actions of the representative chosen to take the produce to market, who may not report prices received correctly. At the same time, there are benefits to an individual from going to the urban market, including being able to observe prices for a range of goods and gaining the opportunity to do other business, such as purchasing inputs or consumption goods.

In addition to marketing fresh produce, smallholders are able to dry some crops as a means of improving their shelf life¹⁰. However, market demand for dried products is generally slow. Except for a limited number of niche, luxury products, such as exotic dried fruit and dried fruit confectionery, which are not produced by smallholders, dried products tend to carry a "poor man's stigma" (Murphy 1996). Meanwhile, Gordon (1997) discusses the opportunities for selling horticultural crops to processing industries. She notes that large-scale food processing in Zimbabwe is largely supplied by smallholders, but is also largely restricted to (plum) tomatoes and peas. Moreover, local industries are struggling under strong competitive pressure from imports, particularly from South Africa.

4 Mutoko and Mudzi Districts

The two districts chosen for the pilot work programme supported by Project R7151 were Mutoko and Mudzi, part of Mashonaland East Province. These are located north-east of Harare along the road to Tete (Mozambique) and Malawi¹¹. Mutoko, in particular, has been the subject of previous research into smallholder horticultural production and marketing (for example, by Boyd, Turner et al. (1997) and van Santen (1997)). This action research, therefore, represented an attempt to tackle some of the problems identified by previous studies.

Furthermore, the Belgian-funded NGO Veco (formerly known as Coopibo¹²), active in both districts, was interested in addressing some of these same problems. Veco Mudzi district office was instrumental in the establishment of Mudzi Horticultural Development Association (HDA) and in 1998 held an initial workshop to discuss horticultural marketing problems with farmer representatives from some of the small-scale irrigation schemes that Veco had constructed or was otherwise supporting. Veco Mutoko district office had, by the start of Project R7151, given less attention to horticultural issues, although horticultural production was much better established in Mutoko than Mudzi, but was also interested in examining some of the problems faced by local producers.

4.1 Horticultural Production and Marketing in Mutoko and Mudzi

In Mutoko, by the standards of communal areas, access to both water and Harare markets is relatively good. Horticultural production takes place both in "dryland" gardens and on

because the main Harare-based traders could generally satisfy their requirements without venturing outside the capital (van Santen 1996).

¹⁰ Horticultural products that are sun-dried and sold by smallholders include: cabbage, spinach, rape, pumpkin and cowpea leaves, choumoellier, okra, tomatoes, chillies, paprika and ginger.

¹¹ Mutoko town is around 140km from Harare centre; Kotwa growth point, the district centre for Mudzi, around 215km from Harare. Nyamapanda, the border point with Mozambique, is a further 20km beyond Kotwa.

¹² Although the name of the organisation was only changed in 1999, for simplicity it will be referred to as Veco throughout this report.

irrigation schemes. A few smallholders have been producing vegetables here since the 1970s, whilst, more recently, an EU-funded Mashonaland East Fruit and Vegetable Project (MEFVP) provided technical advice and assistance with transportation. For some households, horticultural production is now the main source of income. Horticultural crops are grown year round, though in "dryland" gardens the area cultivated fluctuates with seasonal water availability. In larger gardens, farmers claim to grow two or more hectares of horticultural produce after the main rains. A much wider range of horticultural crops is grown in Mutoko than in Mudzi. Nevertheless, Mutoko is renowned as a tomato growing area and clearly many producers find tomatoes to be a lucrative crop. However, there are problems of pest control where tomatoes are grown in some quantity throughout the year, as well as periodic problems of glutting in both local and Mbare markets.

Mudzi is both more distant from Harare and drier, but some horticultural production takes place throughout the year on a number of small-medium scale irrigation schemes. Individual plots on such schemes are small (typically, less than 0.2ha) and are often managed by women. Many men seek work either in Kotwa or outside the district, leaving their wives to grow vegetables. By contrast, in Mutoko, men have a much more dominant role in horticultural production and marketing.

Horticultural producers in these districts have three main marketing outlets:

- Local markets: particularly in Mudzi, where levels of horticultural production are still low, markets within the district can absorb much local output. Some buyers come to irrigation schemes to buy produce; otherwise, it has to be transported to the local business centre for sale. In Mutoko, local markets absorb a much lower proportion of local production.
- Roadside sales: farmers living close to the Harare-Mozambique road sell produce to passing motorists. Roadside sales can be quite lucrative and may be a way of disposing of lower quality produce that it is too costly to transport to Mbare Musika (O. Chivinge, *pers. comm.*). However, they still do not completely overcome the problem of periodic gluts of crops such as tomatoes and rape.
- Harare markets, especially Mbare Musika: Mbare is the main outlet for marketed surplus in Mutoko, with a tiny minority of farmers also sending produce to the independent wholesalers. Significantly, neither Mutoko nor Mudzi is particularly susceptible to frost during the winter months, so there is a "window of opportunity" for sending certain produce (e.g. butternuts, squashes, cucumbers) to the higher value channels in Harare whilst competition from commercial producers is low (Boyd et al. 1997). In recent years, transport services have improved somewhat in Mutoko, but can still be problematic, whilst transport services remain much less developed in Mudzi.

In addition to these channels, a minority of farmers in the two districts produce specialist crops (baby corn, sweet corn) on contract to exporters.

5 Agritex and Marketing Information

Horticultural production extension from Agritex (the national extension agency), supported in some areas by donor projects (e.g. MEFVP) or NGO activity, has contributed to the increase in smallholder horticulture production in the country in recent years. However, information on markets and marketing channels has not received similar

attention. This has become a bigger problem as more smallholders have taken up horticultural production for market.

MEFVP did for some time collect prices of a variety of crops at Mbare Musika. These were collected on an irregular basis from farmers within the project areas who went to Mbare and from project agents who booked spaces at Mbare producers' market for these producers. Summaries of these prices were then disseminated to farmers within the project areas via notice boards. However, van Santen (1996) reports that the principal determinant of farmers' marketing decisions was crop readiness¹³. Prevailing market prices were an almost insignificant factor. As only a tiny minority of farmers showed any interest in the disseminated price information, collection was stopped in 1996 (A. Matau, *pers. comm.*).

The Marketing section of Agritex, established in April 1998, was created to incorporate marketing considerations into the extension recommendations provided by the organisation¹⁴. Initially it comprised just one full-time staff member, Mr. Darius Sanyatwe, based at Agritex headquarters in Harare. An important early activity was the collection of weekly producer price data for thirteen commodities¹⁵ in nine urban market centres (Mbare Musika, Chitungwiza and all but one provincial capital). This was sent to Agritex provincial offices for onward dissemination towards farmers; broadcast over the radio when cheap / free slots could be arranged, and disseminated by other channels (e.g. e-mail or fax to interested NGOs) as opportunity arose. In addition, *ad hoc* market studies, for example one on paprika¹⁶, were prepared, although there was limited dissemination of findings to extension officers or, therefore, smallholders.

6 Pilot Programme of Horticultural Marketing Extension in Mutoko and Mudzi

The pilot programme of horticultural marketing extension in Mutoko and Mudzi districts was run by a team from Agritex headquarters in Harare¹⁷, in collaboration with Agritex

¹³ Where there was some flexibility in timing of sale, such as in the case of sweet potatoes, the principal determinant of the decision when to market was the farmer's need for cash.

¹⁴ Previously, extension recommendations had had a strong "production" orientation. For example, the inclusion of horticultural crops into the cropping programmes of government irrigation schemes sometimes took place without there being a clear idea as to where the producers would eventually sell their crops or what the particular quality requirements of different marketing channels were.

¹⁵ These included seven horticultural crops: cabbage, onions (both fresh and dried), rape, potatoes, tomatoes, bananas and oranges.

¹⁶ The case of paprika production in Zimbabwe provides an excellent example of the need for better information to inform smallholders' production decisions - and highlights the importance of marketing information being kept up-to-date. There was considerable excitement in 1996 regarding the prospects for paprika production. An article in the Zimbabwe Herald noted a favourable world market situation and predicted that domestic production would increase from 15,000 to 25,000 tons over the following five years. Indeed, in 1997/8 area planted to paprika did increase significantly, with some farmers partially shifting out of maize in anticipation of a drought. By early 1998, however, there was something of a glut on the domestic market. Buyers were able to impose tough conditions before they would purchase paprika, for example regarding minimum quantities in a given consignment and the necessity of using irrigation technology in production. These conditions greatly disadvantaged smallholder producers, making it difficult for those who had grown paprika to sell it. Nevertheless, Agritex continued to receive enquiries from producers interested in commencing production.

¹⁷ The team was headed by Mr. Langton Mukwereza and comprised Mr. Sanyatwe, Mrs. Patricia Masanganise and Mr. Wellington Chaonwa - all from Agritex HQ in Harare. In addition, for the purposes of this report, Mr. Kudzai Mariga, the Mashonaland East provincial horticultural subject matter specialist, will be considered part of the "central", as opposed to district, staff involved in the programme.

district staff and extension officers and staff from Veco in the two districts. It was hoped that better marketing information could assist farmers in the two districts to:

- Access alternative, better-paying marketing channels, most notably the major independent wholesalers in Harare;
- Plan the planting of their crops so as to sell when produce is scarce, not plentiful;
- Diversify into production of alternative crops offering attractive market opportunities.

Following discussions with Veco staff in December 1998, ten sites - five each in Mutoko and Mudzi - were chosen for inclusion within the pilot work programme supported by Project R7151. However, operational problems at one of the proposed sites, Nyaruchera irrigation scheme in Mudzi, meant that the number was subsequently reduced to nine¹⁸. These are listed in Table 1.

Table 1: Sites Targetted by the Pilot Marketing Extension Programme

Name	Type	Members	Plot Sizes (ha)	Established by	Year	Distance from Main Road
MUDZI						
Nyamatanda	Irrigated	65M 49F	0.2	Government	1990	5 km
Mavhurazi	Irrigated	31M 62F	0.1 - 0.16	Government	1988	22 km
Mutsinga	Irrigated	14M 11F	0.09	Veco	1994	40 km
Kudzwe	Irrigated	16M 14F	0.03	Veco	1997	17 km
MUTOKO						
Nyahunure	Rainfed	n/a	0.1 - 2.5	n/a	n/a	15 km
Madzande	Rainfed	n/a	0.6 - 2.5	n/a	n/a	6 km
Mbudzi B (Tamuka)	Rainfed	12M 18W	0.5 - 2.5	n/a	1997	3 km
Chindenga	Rainfed	n/a	0.1 - 1.5	n/a	n/a	30 km
Gwiranenzara	Irrigated	-	0.2	Government	-	4 km

Four of the nine sites were irrigation schemes within Mudzi district, established either by the government or Veco between 1988 and 1997. They were chosen to reflect the differences in size and accessibility found amongst the 15 or so irrigation schemes within the district.

The other five sites, in Mutoko, reflected the importance of dryland gardens to horticultural production in this district. However, rather than capturing a cross-section of horticultural producers, they targetted those who were more progressive and/or better organised in their production and marketing activities. Where producer groups existed (for example at Madzande and Nyahunure), they tended to be very loose groupings that did little collectively except meeting extension staff and other visitors. One exception to this

¹⁸ Nyaruchera scheme was established by Veco (Coopibo) in 1995, with 19 male and 31 female members. Unlike the other surveyed schemes, all of which were gravity fed, it relied on a diesel pump to distribute water to the various plots. Members were expected to pay for the diesel to run the pump. Failure to do this led to a temporary closure of the scheme, with the majority of members withdrawing. Until this basic management issue was resolved, the capacity of scheme members to respond to market opportunities was in doubt, so there seemed little point in discussing issues of marketing information with them.

was the Tamuka group in Mbudzi B ward - "all family members" - who coordinated much of their input procurement, planting (including labour) and marketing activities.

6.1 Identification of Farmers' Existing Knowledge and Information Requirements

PRA exercises were conducted at the Mudzi sites in February 1999 and at the Mutoko sites in April 1999. Staff from Agritex headquarters and district offices and from the two Veco district offices took part in these exercises. The checklist of issues prepared for discussions with producers in Mudzi is reproduced in Appendix 1. A similar checklist was used in Mutoko, albeit excluding topics related to irrigation scheme management in rainfed areas.

These exercises confirmed the main problems encountered by horticultural producers in the two districts to include:

- Lack of transport to carry produce to market
- Lack of knowledge of alternative market outlets
- Pest and disease problems, especially red spider mite in tomatoes
- Lack of knowledge of produce prices at the various markets
- Use of uncertified seed.

At virtually all sites in both districts, important production constraints were noted alongside marketing problems.

In Mudzi, marketing information was perceived as a more important constraint at Mavhurazi and Kudzwe, where enterprising farmers were interested in crop diversification, than at Nyamatanda and Mutsinga, where farmers were generally happy with existing outlets (close to the main Harare-Tete road and a "captive" local market respectively). At Nyamatanda, problems of dam siltation took priority over concerns about markets.

A summary of the findings of the Mudzi PRAs is reproduced as Appendix 2, whilst the findings of the Mutoko PRAs are reproduced as Appendix 3.

6.2 Information Gathering and Dissemination

Following the PRA exercises, Agritex and Veco staff took responsibility for addressing the various different problem areas identified:

- Veco initiated participatory farmer research activities into the effectiveness of indigenous remedies (practised in other parts of the country and elsewhere) for the problem of red spider mite - a tomato pest identified as a big problem during the PRA exercises.
- The problem of siltation at Nyamatanda irrigation scheme was raised with the relevant District authorities.
- Mr. Mariga (the provincial horticultural subject matter specialist) prepared technical materials on crop selection and appropriate crop combinations for use in irrigation rotations (Appendix 4). This latter "innovation", based on biological families and pioneered at Chitora irrigation scheme (see below), allows producers

on a given irrigation scheme to produce a variety of crops simultaneously, thus allowing more market opportunities to be exploited and reducing problems of glutting, whilst maintaining discipline in the battle against crop pests and diseases. Whilst Project R7151 cannot claim to have originated it, it may claim to have given an important impetus to disseminating it, assisting irrigation schemes to move away from a previously rigid and top-down approach to production planning. Production notes for a range of horticultural crops that were either new or unfamiliar to some farmers and extension officers in the two districts were also prepared (Appendix 5).

- Farmers at some sites in Mutoko were trained in the production of summer tomatoes (as the higher temperatures and greater humidity raise the incidence of pests and diseases) and in group dynamics;
- The Agritex Marketing section took responsibility for gathering and providing the marketing information desired by the farmers contacted.

In respect of marketing information, the following activities were undertaken:

- An investigation of market opportunities across the border in Mozambique had already been conducted (in December 1998). This concluded that bureaucratic obstacles made trade unattractive to local producers (Appendix 6). This was followed up by a study of the weekly market at Nyamapanda border crossing¹⁹, which was undertaken over a period of months by Agritex and Veco staff. This concluded that the volumes transacted were too small to support any particular marketing effort by irrigation scheme members;
- Links were established with one seed and one chemical supplier, who met producers at target sites in both districts. The seed supplier, Pannar, provided producers at some sites with improved tomato, cucumber, beans and rape varieties to be grown on demonstration plots;
- A visit was made (in September 1999) to the two main independent wholesalers in Harare, Wholesale Fruiterers (Interfresh) and FAVCO. Two representatives from most sites participated in this visit. Those present learnt about the terms on which the wholesalers concerned do business and about some of the seasonal market opportunities that exist for particular commodities.
- Consideration was given to the possibility of farmer tours to Chitora irrigation scheme, also in Mutoko district, where the producers exhibit a high degree of market orientation (Appendix 7). However, this has not been followed up.
- In Mudzi, the Veco district coordinator brokered an arrangement by which producers at two schemes were provided with beans seed and a guaranteed market from a local trader, albeit with a low basic price.

All extension officers in Mudzi and Mutoko districts were provided with an information pack that included:

- The information on seasonal market opportunities for particular horticultural commodities, compiled into table form by the two main independent wholesalers (originally to be used by their buyers);

¹⁹ Mozambicans are allowed to cross into Zimbabwe on foot to purchase produce once per week. Products that they buy include a range of horticultural products.

- The information on crop selection and appropriate crop combinations for use in irrigation rotations and the production notes for new / unfamiliar horticultural crops.
- Information on a range of input suppliers (Appendix 8).

In addition, current price information was collected and disseminated as follows:

- Weekly average prices from a number of markets within Mashonaland East province were sent (by radio call?) from the Agritex provincial offices in Marondera to all district offices within the province;
- The weekly average producer prices from the major urban markets, assembled by the Agritex Marketing section, was disseminate directly (by post) to the Agritex offices in Mudzi and Mutoko districts;
- In addition, a free slot was obtained to broadcast these prices on Radio 4 somewhere between 4.15 and 5.00 each Friday afternoon;
- Weekly surveys of four markets in Mudzi district were organised by Veco (though making use of Agritex staff) and the assembled price information made available to irrigation farmers' representatives through regular meetings of the Veco-supported Mudzi Horticultural Development Association (HDA).

7. Results of the Evaluation

At the end of October 1999, an evaluation was carried out by the authors of this report to assess the effectiveness of the horticultural marketing extension activities to date and to identify any initial impacts from the provision of marketing information. Each of the nine sites was visited and two group questionnaires administered (generally one with those men present and one with the women). In addition, informal discussions were held with the relevant extension officers, with their district managers and with Veco staff.

7.1 Information Received

Although the original intention had been to disseminate most of the relevant marketing (and other) information to producers at the nine sites by early April, in time to influence their planting decisions for the main winter season, little information was actually received by then. More information had been received by August / September and in some cases this had influenced the choice of crops in the ground at the time of the evaluation. The extent to which the information supplied to extension officers had been shared with farmers depended on the confidence of the individual officer in handling it.

Considerable interest had been generated by the visits to the independent wholesalers and by the contacts with input suppliers. However, there was wide variation in the extent to which the information gathered during the visit to the wholesalers had been disseminated to the other farmers at the sites. At three of the irrigation schemes in Mudzi, members hold a weekly meeting with the extension officer responsible for their ward. These meetings provided an excellent opportunity for feedback and information sharing. By contrast, those who had participated from Chindenga (in Mutoko) claimed that it had proved too difficult to organise a feedback meeting, whilst the women at Madzande complained that a few men in their group kept most useful information to themselves. At Gwiranenzara, instead of talking to men and women separately, discussions were held with those who had and had not participated in the initial PRA exercise. The latter group knew little about any of

the marketing extension activities, despite the total number of farmers on the scheme being relatively small.

Regular dissemination of current price information had generally proved problematic. In Mudzi, prices could be relayed to irrigation scheme members at the regular weekly meetings, but only as and when such information was received. Mudzi HDA generally meets once per month. Receipt of price information through Agritex was erratic. Similarly, in Mutoko, although the Agritex district office was extremely creative in search of ways to get price information to field staff, transport and other difficulties meant that there were inevitably delays in getting prices to farmers.

7.2 Initial Impacts

A few of the respondents in Mutoko had sold produce to one or both of the main independent wholesalers during the preceding couple of months. In two cases this was prompted by the organised group visit, as the farmers concerned then realised that they already had crops in the ground that they could sell through the new channels. In the third case, the choice of channel was suggested by a contact in Harare, independent of the extension programme. All sellers were happy with the prices they received:

- A group at Gwiranenzara, who sold collectively, received enough from the sale of garlic to acquire a new water pump when their old one broke down;
- Several farmers at Madzande, who between them sold a total of three tons of butternuts to the two independent wholesalers in the middle of October, received Z\$1400 per bag when the price at Mbare was only Z\$800;
- A man and a woman from the Tamuka group sent butternuts to one of the wholesalers and to Mbare on the same day. He received Z\$700 for three pockets (around 45kg), whereas she only got Z\$200 for a large bag (around 50kg) of similar quality.

However, the farmers at Madzande also noted that the independent wholesalers do not make immediate payments. One settles its accounts at the end of each week; the other pays by cheque (for a commission) or directly into a bank account after 7-30 days. In addition to the delay, these arrangements can cause problems for poor producers who have to make an extra visit to Harare just to collect their money. Other respondents, for example the male respondents at Kudzwe, felt that they simply could not meet the quality requirements of the independent wholesalers, so would continue to use their existing marketing channels. At Gwiranenzara, the group who had not attended the original PRAs complained that prices of certified seeds made high quality production impossible for them. They also reported hearing that the prices offered by the independent wholesalers only exceeded Mbare prices when supplies were scarce. When supplies were plentiful, one of the wholesalers might not even be interested in their produce.

Transport also poses a problem for producers wishing to sell to the independent wholesalers. Rural buses only go to Mbare (the site of the main terminus). Meanwhile, truck operators are reluctant to make a diversion to the wholesalers' premises, where they have to unload the relevant produce, wait while it is inspected, then reload that which is rejected as being of unsuitable quality, before finally proceeding to Mbare. (This, of course, might change if more of their clients demand the additional service).

Despite these reservations, several groups stated their intention to target the independent wholesalers with future harvests. At Chindenga the evaluators were shown beans that were intended for sale through these channels. Two other groups claimed to have started collecting prices from them on a regular basis.

In terms of other changes already made, three groups had prepared tomatoes for summer production. Many other respondents expressed an interest in growing a variety of new crops, but invariably needed more technical advice before being confident to translate this interest into action.

Conversations with both producers and extension officers suggested that the programme is encouraging a change in thinking - towards greater market orientation - on the part of some groups who had previously treated marketing as merely an add-on to their production activities. In irrigation schemes in Mudzi, most notably Kudzwe, the information supplied to extension officers has assisted moves towards greater farmer participation in the planning of the cropping schedule. In Mutoko several respondents noted with appreciation that Agritex staff have started to pay attention to horticulture²⁰ - in keeping with its importance to their livelihood strategies.

7.3 Different Types of Information

Perhaps not surprisingly, given the identity of the evaluators, respondents were unanimous that Agritex and VECO should continue to supply marketing information. Whilst the obvious bias in Table 2 should not be overlooked, the table does show that respondents felt they had relatively few other sources of reliable marketing information. Although other farmers were commonly relied upon, this source of information was not entirely trusted, as people like to keep details of attractive opportunities to themselves.

Table 2: Farmers' Ranking of Sources of Information (in terms of Importance to their Horticultural Production and Marketing Decisions) 1999

	1st	2nd	3rd	4th	5th
Agritex / VECO	13				
Other Farmers		8	4		
Own Visits to Market	1	3	2		
Farmers' Organisation (HDA)		1			
Radio				1	1
Middlemen			2		
Other			1	3	

Number of ranking exercises conducted = 14

Most respondents expressed a clear preference for information on crops and market opportunities, rather than current price information, if Agritex had to focus on one or the other. A common refrain was that "You have to have the right crop at the right time if you want to get a good price." Respondents noted that current price information is often slow to arrive and does not tell them what prices they are likely to receive, as prices are notoriously volatile, particularly at Mbare. Whilst prices in other markets (within

²⁰ Previous neglect was explained by the fact that extension training in Zimbabwe tends to concentrate on major "dryland" crops such as maize and groundnuts, to the neglect of horticultural production.

Mashonaland East and elsewhere in the country) may be somewhat more stable, farmers can rarely get transport to these alternative markets. Few respondents listened to the prices broadcast on the radio, chiefly either because they were unaware of the broadcast or because they were generally still busy with other activities at that time of the evening.

These comments notwithstanding, a few interesting examples of the value of current price information were encountered:

- Where producers make farmgate sales, information on prices prevailing in other markets is useful in setting appropriate prices. In Mudzi, especially Mutsinga and Kudzwe, the prices obtaining at markets within the district are most useful in this regard. At Nyahunure (Mutoko), where the buyers are more likely to be traders, provincial and Harare market prices are helpful.
- If Mbare prices are low, one group of respondents said that they would try to send their produce to market with someone else. Not only would this economise on transport costs, but the quoted price would relieve their suspicions if their colleague came back reporting a relatively unremunerative trip.
- "Sharp" farmers make a mental note of current price information, thus gradually converting it into historical price information over time. They then use this to inform planting decisions.

7.4 Production Advice and Training Needs

Although valuing marketing advice, respondents emphasised that they also still needed production advice from Agritex - particularly if they were to successfully exploit the new market opportunities that they were being informed about. Particular needs were:

- The agronomy of new crops;
- Pest and disease management;
- Training in post-harvest techniques of grading, handling and (at a couple of sites) onion drying.

The evaluation also highlighted the need for some additional training for Agritex extension officers, so as to build their confidence in using the new information provided to them.

8. Developing the Programme in Zimbabwe

The Marketing section of Agritex intends to continue and expand the marketing extension activities piloted in Mutoko and Mudzi:

- There is a need to broaden coverage within these two districts, extending the new information to other sites and working to ensure a more even dissemination even within the original nine sites. It is too early to say how widely the benefits from increased information provision will be spread, but it seems inevitable that some farmers (the more enterprising, who are rarely the poorest) will benefit more than others.
- The next step will then be to take the experience gained to other districts and provinces.

The initial evaluation suggests that marketing extension efforts should focus on highlighting market opportunities - and equipping farmers to respond to them - not just on gathering and disseminating current market prices. Price collection should continue, including decentralised initiatives to monitor local markets, but the emphasis within dissemination activities should be less on current prices and more on the periodic provision of historical price analysis. This is easily within the capability of the Agritex marketing section, which already enters the weekly price information that it gathers onto a spreadsheet. Such information would usefully complement the information made available by the major independent wholesalers on seasonal market opportunities for various horticultural products.

There is, of course, a need to keep up to date the marketing information provided to extension officers - and thereby to farmers - and to continue to look for opportunities to link farmers with input suppliers and buyers.

As well as building the confidence of Agritex extension officers in handling marketing issues, there is a need to encourage a greater market orientation amongst farmers. This may be done through promotion of activities such as record keeping and the participatory production of price charts (effectively getting farmers to compile their own historical price information), causing them to reflect more on the returns that they receive from their various production activities. Farmers themselves also suggested that more "look and learn" tours be arranged, so that they could learn from the experiences of more market-oriented peers. In this the role of agencies such as Agritex and Veco should chiefly be one of facilitation, however, with participants paying towards the cost of the tours.

This raises one of the critical questions for the pilot programme: that of sustainability. The pilot activities in Mutoko and Mudzi have received around £9,000 in recurrent cost support from Project R7151. Much of this has been used to fund the field activities of Harare-based Agritex staff and the Mashonaland East horticultural subject matter specialist whilst the basic approach was being piloted. There is some confidence that the work within the two districts can now continue largely within the ongoing Agritex programme and budget. In order to generate firmer conclusions on the viability of marketing extension programmes in Zimbabwe and elsewhere in Sub-Saharan Africa, the continuation of the programme without external support (or possibly with a much reduced contribution from an extension of Project R7151) should be monitored.

Meanwhile, if marketing extension activities are to be replicated elsewhere in the country, a way will have to be found of reducing the input required from Harare-based staff. One way of doing this would be to bring district and provincial staff from the areas concerned to Harare to meet Harare-based staff and staff from Mutoko and Mudzi who already have experience of the basic approach adopted. The initial fact-finding (PRAs) and the collection of information on local markets need not entail significant input from Harare-based staff, particularly if there are NGOs in the areas concerned that would be interested in participating in a marketing extension programme (as Veco has in Mutoko and Mudzi). Even so, some "pump-priming" resources are likely to be required for the initial establishment of a marketing extension programme in a new area, allowing Harare-based staff to oversee and provide guidance to district-based colleagues.

Once local officers understand the basic approach, however, there are considerable economies of scale in collection of relevant information by the Marketing section in Harare and provision of this information to provinces and districts.

9. Conclusions

Although still at a very early stage, the pilot marketing extension programme in Mutoko and Mudzi suggests that a reasonably effective extension service, such as Agritex, can play a useful role in the provision of marketing extension to smallholders in Sub-Saharan Africa. The emphasis on marketing within extension activities should not be at the expense of production advice, however. Rather, increased marketing awareness within the extension service will enhance the value of its production advice to clients.

Initial feedback from farmers in Mutoko and Mudzi also supports the consensus emerging from other countries that the emphasis within marketing information provision should be on highlighting market opportunities - not just on gathering and disseminating current market prices.

Finally, the pilot marketing extension programme in Mutoko and Mudzi suggests that some farmers will benefit from improved marketing information, even without other improvements to the horticultural marketing system. How wide a range of producers can do this remains to be seen, however. It may be that poorer producers will only be able to take advantage of new market opportunities if there are simultaneous improvements in transport services and access to capital (for purchase of the necessary inputs).

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