
Facilitating the effective production and marketing of processed food products by small-scale producers in Zimbabwe

Output 7: Report of Dissemination Activities

Collaborative Study:

Department of Agricultural and Food Economics,
The University of Reading, UK

Institute of Food Nutrition and Family Sciences
Development Technology Centre
Dept of Agricultural Economics and Extension
The University of Zimbabwe, Harare, Zimbabwe



The University of Reading

Dept. of Agricultural and Food Economics,
The University of Reading,
4 Earley Gate, Whiteknights Road,
PO Box 237,
Reading RG6 6AR,
UK



Inst. of Food Nutrition & Family Sciences
The University of Zimbabwe,
P.O. Box MP167,
Mount Pleasant,
Harare,
Zimbabwe

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¹Nazare R., ¹Mhazo N., ²Hanyani-Mlambo B., ³Muredzi P., ³Gadaga T H.,
³Nyanga L., ¹Mupanda K., ³Mutukumira A N., ⁴Proctor S.

¹Development Technology Centre
The University of Zimbabwe
P.O Box MP 167
Mt Pleasant
Harare
Zimbabwe

²Dept of Agricultural Economics & Ext.
The University of Zimbabwe
P.O Box MP 167
Mt Pleasant
Harare
Zimbabwe

³Inst.of Food, Nutrition &Family Scie.
The University of Zimbabwe
P.O Box MP 167
Mt Pleasant
Harare
Zimbabwe

⁴Dept of agricultural and Food Economics
The University of Reading
Early Gate, Whiteknights
P.O box 237
Reading RG6 6AR
UK

Contents

- 1 Introduction
 - 1.1 Background
 - 1.2 Organisation of the report
- 2 Major project activities and findings
 - 2.1 Producer processor case studies
 - 2.2 Producer processor survey
 - 2.3 Identification of potential solutions
 - 2.4 Validation exercise
 - 2.5 Policy maker's workshop
 - 2.6 International workshops
- 3 Dissemination Activities
 - 3.1 Producer/processor case studies
 - 3.2.1 Producer/processor survey
 - 3.3 Identification of potential solution
 - 3.4 Validation of potential solutions
 - 3.5 Development of Policy Recommendations
 - 3.6 International workshops
- 4 Discussion
- 5 Conclusion
- 6 References
- 7 Appendices

1 Introduction

1.1 Project background

Poverty levels in Sub-Saharan Africa continue to grow with research estimates between 75 and 90% of households in Zimbabwe living below the Government's official poverty datum line (Chipika, 1992). The majority of Zimbabweans live in rural areas and have agricultural production as their main source of livelihood. Yet within the same country post harvest losses of horticultural crops range from 30 to 40%.

It has been suggested that agro-processing activities are an effective way of eliminating poverty and improving the quality of life of marginalised people (Richter *et al.*, 1996; McPherson, 1991). Food processing has the potential to reduce post harvest losses, add value to crops produced by poor farmers, expand market opportunities, improve shelf life and overcome seasonal marketing constraints. Adoption of improved processing and marketing techniques by small-scale producers of horticultural crops has the potential to improve their incomes and hence reduce poverty levels.

The University of Zimbabwe, in collaboration with the University of Reading have conducted research on the production and marketing of processed food products by small-scale producers in Zimbabwe. The overall objective of the research project was to improve processing technologies thereby adding value to crops produced by poor farmers. The specific objectives of the project were to: -

- i) Identify opportunities for small-scale processing of horticultural products in peri-urban areas of Zimbabwe.
- ii) Assess the potential returns to small scale processing of horticultural products in Zimbabwe.
- iii) Assess constraints to the effective production and marketing of horticultural products by peri-urban producers and processors.
- iv) Identify mechanisms to overcome constraints and exploit opportunities for small-scale processing of horticultural products.
- v) Communicate such knowledge to users including small-scale producers and processors, policy makers and NGOs.

1.2 Organisation of the report

This particular report discusses the project outputs related to the specific objective (v), which highlights the need to communicate project findings to a range of interest groups in the horticultural crop production and processing sector. The major activities of the project as well as their outputs are summarised. The report identifies the project outputs that were disseminated. The target groups for the dissemination activities are presented. Finally, the methodology for dissemination to specific target groups is also discussed.

2 Major project activities and findings

2.1 Producer processor case studies

Case studies were undertaken with 26 small-scale producers/processors of horticultural crops in Zimbabwe to get a better understanding of the requirements of the sector. The main areas of interest were the constraints faced by the sector in producing raw materials, processing and marketing of the processed products.

2.1.1 Specific objectives of the case studies

- a) To identify the necessary requirements for small-scale producers/processors to effectively manufacture and market processed products based on horticultural crops and hence access the market for processed food products.
- b) To identify the potential externalities associated with the processing of horticultural products in the study areas.
- c) To identify constraints that might prevent small-scale producers of horticultural crops from manufacturing and marketing processed products effectively.

2.1.2 Overview of the findings of the case studies

The case studies identified eight major areas that constrained the outputs of small-scale horticultural producers and processors. These included: -

- a) Socio-economic constraints resulting from declining disposable incomes and reduced inflow of tourists. High production costs were also identified as a constraint.
- b) Crop production and management constraints largely linked to limited access of producers to fertile land and water resources.
- c) Technological constraints as a result of limited access to equipment and processing facilities
- d) Packaging constraints largely as a result of the processors' limited access to appropriate packaging materials.
- e) Marketing constraints arising from the processors inability to access reliable and viable outlets for their products.
- f) Training constraints largely to do with limited access of processors to appropriate training resources.
- g) Legal constraints arising from the need to comply with national food safety requirements. Awareness of the requirements and capacity to comply with the regulations were identified as major constraints.
- h) Working capital constraints as a result of the limited resource base of the processors were also identified (Mhazo *et al.*, 2003).

2.2 Producer processor surveys

2.2.1 Objectives of the producer/processor surveys

The case studies previously discussed were designed to gain a general understanding of the operations and constraints faced by small-scale producers/processors of horticultural

crops in Zimbabwe. Thereafter a formal survey of 294 small-scale producers/processors of horticultural crops was conducted in three of the country's eight agricultural provinces. The objective of the formal survey was to identify in more detail the necessary requirements for the producers/processors to effectively manufacture and market processed products.

2.2.2 Overview of the findings of the producer /processor survey

The survey identified dried vegetables, dried fruits and fruit confectioneries, and jams/marmalade and chutneys as the main products processed by small-scale food processing enterprises. About 84% of the enterprises produced dried vegetables making dried vegetables the most popular enterprise. The other two enterprises were jam making (15%) and fruit drying (26%). About 27% produced at least two of the three products. Formal registration of enterprises was uncommon with 90% of the enterprises operating from their homes. About 83% of the enterprises did not own any food processing equipment/ machinery. At least 83% of the enterprises processed their own raw materials without the need for 'outsourcing'. About 60% of the processors used some form of packaging frequently when selling food products suggesting a high level of informal trading in processed products from the remaining 40%. The average quantities sold annually were about 340 kg. The major constraints identified in the survey included insufficient capital (48.3%), high input costs (38.5%), inadequate water supplies for crop production purposes (37.5%), transportation difficulties (29.9%), poor quality of inputs (16.3%), failure to receive inputs on time (18.5%), and minimum orders requested by suppliers (11.9%), (Hanyani-Mlambo *et al*, 2003).

2.3 Identification of potential solutions

2.3.1 Objectives

Fifteen semi-structured interviews with providers of technical assistance, policy makers and producers/processor organisations, etc, were conducted to identify potential solutions to constraints identified in the producer/processor survey. The potential solutions were then referred back to the producers/processors for validation.

2.3.2 Major findings

The majority of the institutions interviewed proposed the following measures as possible solutions to the constraints identified: -

- a) A review of land tenure and water rights to allow producers/processors better access to the two resources.
- b) The need for co-ordinated and decentralised training in horticultural crop production and processing.
- c) Formation of commodity associations to overcome the high capital cost of equipment as well as to improve access to credit facilities.
- d) The need for a diversified product range as well as marketing channels to overcome current problems.
- e) The need to promote good packaging materials to improve product marketing.
- f) The need for training in food legislation prior to the enforcement of food laws.

- g) The need to validate the potential solutions with producers/processors.

2.4 Validation of potential solutions

2.4.1 Objectives of the validation

Interviews were conducted with a sample of 15 producers/processors to validate the potential solutions as suggested by providers of technical assistance, policy makers, etc.

2.4.2 Findings of the validation of potential solutions

The validation exercise revealed that 96% of the 50 identified solutions could be implemented and adequately addressed the needs of small-scale processors of fruits and vegetables. The conclusion then was that the potential solutions could form the basis for formulation of policies and recommendations that enabled improved production and marketing of food products by the small-scale sector (Hanyani-Mlambo *et al*, 2003)

2.5 Policy recommendations

2.5.1 Objectives of the workshop on policy recommendations

After validation of potential solutions, a workshop on policy recommendations was convened in Harare. The primary objective was to produce a series of recommendations that are considered technically and economically feasible instruments for facilitating the effective production and marketing of value added products by small-scale producers (Hanyani-Mlambo *et al*, 2003).

2.5.2 Output from the workshop on policy recommendations

Policy issues in the following areas were recommended

- a) Food safety, hygiene, standards and legislation
- b) Appropriate technology
- c) Business development
- d) Training
- e) Credit Opportunities

A report on policy recommendations detailing the outputs is available (Hanyani-Mlambo *et al*, 2003).

2.6 International workshops

2.6.1 Objectives of the Food Africa Network

The FoodAfrica Network is an initiative that seeks to address food security and economic growth through research in response to the rapid changes in population growth and socio-economic environment in many African countries. Four scientific papers were prepared on the activities of the project and presented at the FoodAfrica Internet Based Forum held from 31 March to 11 April 2003, and the International Working Meeting held in Yaoundé, Cameroon from 5 to 9 May 2003.

2.6.2 Output from the FoodAfrica Forum

Three abstracts and the full papers under the theme entitled "*Consumer attitudes to food products processed by small-scale enterprises: Perspective from Sub-Saharan Africa*" were presented at FoodAfrica Forum as follows:

- a) S A Proctor *et al.*, (2003). *The potential of food processing to improve the livelihoods of the poor in Zimbabwe.*
- b) T H Gadaga *et al.*, (2003). *Constraints to small-scale production and marketing of processed food products in Zimbabwe.*
- c) N Mhazo *et al.*, 2003 (*Zimbabwe: The case of fruits and vegetable.*

The abstracts were included in the Agro-Food-Enterprises theme that is accessible on website (<http://foodafrica.nri.org>). The papers are being considered for publication in the conference proceedings.

The outcome of the Internet discussions highlighted the need for small-scale agro-enterprises to:

- Facilitate supply of food from high production areas to food insecure zones
- Reduce the current food losses.
- Create income from sales of processed food products.
- Acquire/access right equipment and training in equipment operation and maintenance.
- Ensure production of nutritious, safe and good quality food.
- Reduce export of raw material from rural areas to the urban based processors
- Reduce import of processed products.
- Understand consumer expectations.

3 Dissemination Activities

3.1 Producer/processor case studies

Dissemination activities

Methodology

Twenty-six case studies were conducted in Mashonaland East and Manicaland Provinces of Zimbabwe. The case study enterprises processed horticultural produce with the products being dried vegetables and fruits as well as jams and chutneys. Two teams each with two researchers conducted the studies. The studies were conducted using a checklist developed from previous research work. The discussions consisted of a dialogue between researchers and processors. The researchers presented suggested potential solutions to the constraints indicated by the processors based on information obtained in the project, their knowledge and experiences. Processors were provided with information about sources of materials, e.g. packaging. In many instances, the researchers acted as links for passing on information to processors.

Typical Example of 'Indirect' Dissemination of Activities

Murehwa Fruit Processors have been in the business for about 8 years. They have developed a wide range of dried fruit and vegetable products. The project team visited

the site and during the discussions the researchers were exposed to the product range and the processes used. The project team then moved on to visit another food processing enterprise in Mudzi district. The enterprise was involved in vegetable drying only and was not aware that it was in fact possible to dry mangoes, bananas and paw paws. These fruit were available fresh in the area. The project team used dried fruit samples procured from Murehwa Fruit Processors to expose the Mudzi enterprise to the new products and the processing systems.

Such dissemination exercises took place in the case studies although the primary objective of the project team was information gathering. Copies of reports of the projects are expected to be distributed to processors to serve as sources of information. This would form part of the information dissemination activities of the project.

3.2 Producer /processor survey

Dissemination activities

A survey of 294 small scale producers/processors was conducted in Mashonaland East, Mashonaland West and Manicaland provinces. Assistance in implementing the survey was sought from 15 agricultural extension workers from the Department of Agricultural Research and Extension (AREX) in the Ministry of Lands and Agriculture.

The project team trained AREX officers by going through the survey instrument (questionnaire). The status of the industry was outlined in detail to the officers. The training sessions served as part of a dissemination exercise for the AREX officers.

3.3 Identification of potential solutions

Dissemination activities

The identification of potential solutions involved visiting the premises of providers of technical assistance, policy makers, producer processor organisations, training institutions, standards institutions, etc. The project team outlined the status of the industry, the constraints as presented by processors and requested for potential solutions. By presenting and discussing the constraints, the project team broadened the scope of the solution providers' understanding of the small scale processing sector and their operational difficulties.

Appendix 1 shows a list of representatives of organisations who provided suggested potential solutions to the constraints faced by processors.

3.4 Validation of potential solutions

Dissemination activities

The first project activity involved conducting 26 case studies of small-scale processors who generally outlined their operations and constraints. The validation exercise had a sample of 15 processors and effectively presented some potential solutions to the

constraints faced by processors. The validation exercise also served as part of dissemination of some of the activities. Appendix 2 shows a list of enterprises visited in the validation exercise.

3.5 Development of Policy Recommendations

Dissemination activities

The major role of policy makers is to create an enabling environment that allows the small-scale-processing sector to thrive. Therefore, the policy makers needed to have a good understanding of the requirements of small-scale producers/processors. A workshop was organised for policy makers on the 3rd of September 2003. The project team presented information on the status of the small-scale food processing industry to the participants. The major constraints for the sector were then outlined after which specialist groups were tasked to identify possible policy measures which needed to be adopted to ensure the industry thrives. The policy recommendations presented by the groups reflected an understanding of the industry, which is a good indication that the project team had outlined the status of the industry and its constraints well. In this regard, the project team had in fact disseminated the required information to the policy makers well. Appendix 3 is a list of representatives from institutions who attended the workshop.

3.6 International workshops

Dissemination activities

Some of the research findings from the producer/processor and the consumer surveys were disseminated to a wide range of individuals and scientists in Sub-Saharan Africa, West Africa and Europe through the FoodAfrica Network.

The international Working Meeting was held in the Congress Centre / Palais de Congress Yaoundé, Cameroon. The meeting was attended by 140 participants from 30 countries. Approximately 85 papers and 30 posters were presented. The quality of presentations and discussions were of high standard. The power point versions of the presentations are available on the website (<http://foodafrica.nri.org>). The full papers are currently being edited and will be compiled in the meeting proceedings. Possibilities of producing the proceedings as a special issue journal are being considered. A much wider dissemination of the results is therefore expected beyond the project life.

4 Discussion

Specific objective (v) outlined in this report is to the effect that the project would communicate its findings to producers/processors, policy makers and NGOs. With respect to this objective, communicating the project findings to policy makers was achieved based on the attendance to the policy makers workshop, as well as the output in the form of policy recommendations outlined in: 'Output 6 - Report of policy recommendations'. Communicating the findings to producers/processors who are the primary target group could have been better. A sample of 15 used in the validation exercise is too small for the project to claim that it had achieved its final objective.

A number of dissemination exercises highlighted were in fact not the primary objective of the project activities. For instance, the primary objective of the case studies was information gathering on the current status of the small-scale-processing sector and the constraints they faced. The fact that the project team members ended up assisting the processors was not originally planned for.

A strategy which identifies the interest groups in this sector and deliberately formulates dissemination activities to meet the needs of the groups, would assist the industry. As highlighted in the conclusions of 'Output 6', it is evident that there is need for an integrated approach that addresses issues of interest to the sector.

5 Conclusions

The one group that has probably benefited most from the project dissemination activities is the policy makers. They are however only one of ten groups with an interest in this sector. Therefore, there is need to develop strategies to communicate the projects findings to sub-policy levels amongst processors, manufacturers, extension, research and training agents, financial health and standards institutions. Failure to address these other interest groups as part of the same picture will lead to a fragmented development approach to the industry which is unlikely to lead to its sustained growth.

6 References

Chipika, S. (1992). Poverty, food insecurity and child malnutrition in Zimbabwe. ITDG, Rugby.

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Appendix 1

Informants that participated in the 'Identification of potential solutions' exercise

| Organisation | Individual interviewed | Role of organisation |
|--|-------------------------------|---------------------------------|
| Consumer council of Zimbabwe | Mrs Mutondohori | Provide technical assistance |
| Chinhamora Agricultural producers Association | Mr Gahadza | Producer/processor organisation |
| City Health Department | Mr Chibanda | Provide technical assistance |
| Development Technology Centre | Mr Tunga Rukuni | Provide technical assistance |
| Zimbabwe Farmers Union | Mr Chinaware | Provide technical assistance |
| Government Analyst Laboratory | Mrs Zindi | Provide technical assistance |
| Horticultural Research Centre | Mr Chigumira | Provide technical assistance |
| Jekesa Pfungwa/Vulinquundo | Mrs Jambaya | Provide technical assistance |
| Ministry of Youth Gender and Employment Creation | Mrs Katena | Policy maker |
| Murehwa Food Processors Association | Mr Nyatumbu/Mrs Muzuva | Producer/processor organisation |
| SEDCO | Mr Fifteen | Provide technical assistance |
| Silveira House | Ms Chuela | Producer/processor organisation |
| Standards Association of Zimbabwe | Ms Terera | Provide technical assistance |
| Zimbabwe Project Trust | Mr Chipare | Provide technical assistance |
| Zimbabwe Womens' Bureau | Mr Matione | Provide technical assistance |

Appendix 2

Small-scale producers/processors that participated in the 'Validation of potential solutions'

| Type of Enterprise | Location of Business (district, Ward, etc) | Agro-ecological region where small-scale enterprise located |
|----------------------|--|---|
| Dried vegetables | Nyamutumbu Village, Murehwa | 2b |
| Dried vegetables | Murehwa Center, Murehwa | 2b |
| Dried vegetables | Nyamutumbu Village | 2b |
| Dried vegetables | Wengezi Junction, Chimanimani | 3 |
| Dried vegetables | Chiwaka village, Mudzi | 3 |
| Dried fruit | Chipinge Town | 1 |
| Dried fruit | Nyamutumbu Village, Murehwa | 2b |
| Dried fruit | Mt Selinda Hospital | 1 |
| Dried fruit | Chipinge Town | 1 |
| Dried fruit | Chipinge town | 1 |
| Jams/fruit preserves | Malwaitte Village Marondera | 2a |
| Jams/fruit preserves | Rainvalley Farm, Nyanga | 1 |
| Jams/fruit preserves | Halfway house, Marondera | 1 |
| Jams/fruit preserves | Juliasdale, Nyanga | 2a |
| Jams/fruit preserves | | 1 |

Appendix 3

List of Policy Participants at the Workshop on Development of Policy Recommendations, Quality International Hotel, 3 September 2003.

- Mr. D. Chibanda
Deputy Director of Health

City Health Department (City of Harare)
Harare
- Mr. D. B. Nhari
Government Analyst
Government Analyst Laboratory
Harare
- Mrs. Mapungwana
Deputy Director of Employment Creation
Ministry of Youth, Gender and Employment
Creation
Harare
- Mr. A. Chigumbu
Director
Environmental Health Services
Ministry of Health and Child Welfare
Harare
- Mr. Justin Mliilo
Tobacco Research Board
Kutsaga Research Station
Harare
- Mr. Phil Chingwaru
Zimbabwe Farmers Union
Harare
- Mr. Gabi
Standards Association of Zimbabwe
Harare
- Mr. Kennedy Chakanyuka
Commercial Farmers Union
Harare
- Ms. Dendere
Ministry of Small, Micro and Medium
Enterprises
Harare
- Ms. Grace Kuvengurwa
Jekesa Pfungwa/Vulungqondo
- Mr. Matione
Zimbabwe Women's Bureau
Harare
- Ms. Chiuta
Silveira House
Harare
- Mr. C. Bepura
Programme Manager
SADC FANR Development Unit
Harare
- Miss. D. Muzengeza
Nutrition Consultant
FAO Sub-Regional Office for Southern and
Eastern Africa
Harare
- Mrs. Chavarika
Ranche House College
Harare
- Mr. Matsambe
Rural Information Project Trust
- Mr. B. T. Hanyani-Mlambo
Dept. of Agricultural Economics & Extension
The University of Zimbabwe
- Dr. A. N. Mutukumira
Institute of Food, Nutrition & Family Sciences
The University of Zimbabwe,
- Mr. P. Muredzi
Institute of Food, Nutrition & Family Sciences
The University of Zimbabwe,
- Dr. T. H. Gadaga
Institute of Food, Nutrition & Family Sciences
The University of Zimbabwe,
- Mrs. L. K. Nyanga
Institute of Food, Nutrition & Family Sciences
The University of Zimbabwe,
- Mr. N. Mhazo
Development Technology Centre
The University of Zimbabwe
- Mr. R. Nazare
Development Technology Centre
The University of Zimbabwe