An Appraisal of The Small-Scale Agroprocessing Sector in Rodrigues – Part 2: Product Marketing, Training Programmes and Awareness of Support Services

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ABSTRACT

This second and final paper on the agroprocessing sector in Rodrigues deals with the marketing of agroprocessed products, the relevance of past training programmes, future training needs in the sector and end-users' awareness of support services. 119 producers were interviewed using a structured questionnaire. The survey indicated that the products are mostly sold directly to the consumers (69%) by the processors, either along the roadside or market stalls. The products are mainly advertised through word-of-mouth. Most of them do not keep financial, production and sale records and do not calculate their cost of production. 75% of them fix the selling price by adding a mark-up on their perceived cost of production, while some 20.4% rely on the prices set by their competitors. 68% of the respondents

have followed a training programme and 80% of them find it to be beneficial. There is a high demand for training in the following areas; food preservation techniques, packaging, food labelling, food safety and quality, business management and marketing skills. Several support institutions provide technical information, financial assistance and training to the agroprocessors but their activities are not properly coordinated. Specific recommendations regarding improved marketing strategies, effective training programmes and support services are made for boosting the agroprocessing sector.

Keywords: Rodrigues, small-scale agroprocessors, marketing, training, support institutions.

1.0 INTRODUCTION

Agroprocessing in Rodrigues involves the manufacture of a wide range of ethnic and traditional food products like pickled lime, pickled chillies, sweet and sour lime, processed pork products such as ham and sausages, dried octopus and salted fish. All these products are produced from local agricultural raw materials. With the new thrust being given by the Rodrigues Regional Assembly (RRA) – the supreme governing body - this sector represents a potential source of employment and a good means for generating income for the inhabitants The raw materials and ingredients used, the types of products, the manufacturing practices and associated food quality and hygiene aspects to produce these products were discussed in Goburdhun, Boodhoo and Ruggoo (2009). However, the production of quality products should be coupled with good marketing practices, the presence of a fully functional support service and provision of relevant training programmes for the successful development of the sector.

Many agroprocessed products of Rodrigues have very good prospects for increasing their market shares not only on the local market but also on international niche markets. So far, there has not been sufficient penetration of these products on these markets because the current marketing strategies may not be the most appropriate. In fact, lack of market information and lack of market research have been identified as two major constraints that prevent small scale agroprocessors from increasing their market share (Shepherd, 2003; Mhazo *et al.*, 2003; Lubowa, 1998). It is therefore crucial that the marketing practices adopted by the agroprocessors be examined to identify constraints and to propose more effective marketing strategies.

Although several training programmes have been organised to upgrade the skills and competencies of the agroprocessors, they have not been systematically evaluated so far. It is also not clear how beneficial these programmes have been to the agroprocessors. Indeed Battcock et al., (1998)

spelt out three major steps to design relevant training programmes: assessment of training needs, delivery of the training programmes and post training assessment. All training programmes offered should therefore be assessed and lessons should be drawn for designing future programmes.

Fellows (2004) emphasised that the existence of support services is central for boosting the development of the sector. He highlighted that service providers are intended to produce the following: improved knowledge and practical skills of entrepreneurs, permanent improvement in product quality and range of processed foods, increased productivity of food processors through introduction of high quality food processing equipment, more efficient methods of processing, increased profitability of enterprises and increased availability of technical and developmental information for the food sector. Although, there are some institutions that provide support to the agroprocessors in Rodrigues, it is not known whether the agroprocessors are aware of their existence and how useful these institutions are to them.

The general lack of information on these key areas is viewed as major obstacles for developing appropriate policies and strategies for the sector. Thus, the present study sets out to (i) examine the marketing strategies for the agroprocessed products, (ii) assess the training status and future training needs for the agroprocessors and (iii) gauge the awareness of the agroprocessors on support services provided

The survey findings have important implications for agroprocessors and policy makers in this sector. Agroprocessors can use the information to improve their operations to increase their market share and gain more consumer confidence. Policy makers can use the information to develop evidence-based policies to boost up the sector.

2.0 METHODOLOGY

2.1 Questionnaire Design

A 22-page questionnaire was elaborated to gather data on several aspects of the agroprocessing sector in Rodrigues, namely, marketing and price mechanisms, past training programmes, types of innovation, awareness of support services by agroprocessors, among other parameters. The questionnaire was divided into several sections. The marketing sections included questions on: sales outlets, marketing arrangement, cost of production and advertisement. The questions on training focused on the training programmes attended and the agroprocessors' future training needs. Finally, the questions on support services dealt with the awareness of these services and the constraints they faced to accede them. The questionnaire was modified after it had been pretested with agroprocessors in Mauritius and the Commission for Agriculture in Rodrigues.

2.2 Data Collection and Analysis

All agroprocessors (n=119) were interviewed by trained enumerators who were second year graduate Rodriguan students from the Faculty of Agriculture, University of Mauritius and had experience working with agroprocessors in Rodrigues. The respondents were interviewed at either their place of residence or at the offices of the different centres/associations. The questionnaire was administered in Creole – the interviewees' mother tongue - to ease understanding of the questions and obtain adequate responses. The island-wide survey was carried out over a period of three months (June –August 2005). The completed questionnaires were verified for errors, incompleteness and gaps in the information collected. The data was coded, captured and analysed using SPSS version 13.0. Data analysis involved mainly summaries as percentages for each question. A thorough description on the design and administration of the questionnaire, data entry and analysis is given in Goburdhun *et al.* (2009).

3.0 RESULTS

3.1 Marketing of products

The survey indicated that the agroprocessed products were sold at different types of sale outlets, the most common ones being direct sales to consumers and sales in markets (Table 1). Most of the agroprocessed products were bought by tourists visiting the island, mainly from Mauritius. There was very low demand for these products on the Rodriguan market. Very few processors (5%) exported their products.

Sales Outlets	% of cases
Direct sales to public	69.4
Sales in markets	42.3
In trade exhibition	36.0
At the premises of the association	18.0
In supermarkets	12.6

Table 1: Type of sale outlets for the various products

A majority of agroprocessors (93.2%) indicated that they wished to sell their products in bulk or wholesale as this would increase their turnover and cash flow, thus enabling them to invest more in the enterprise and produce more. However, a few respondents (6.8%) reported that their production capacity was too low to sell in bulk. Three out of four agroprocessors reported that they fixed their selling price by adding a mark-up on their perceived production cost. Some 20.4% used the prevailing market prices, whilst some 3.7% of respondents resorted to both practices.

About 53% of the agroprocessors advertised their products mainly through word-of- mouth (90.7%), roadside advertising panel (5.6%) and exhibition (3.7%). Other advertising methods included printing on labels, giving information to hotel clients and displaying the various agroprocessed products in local shops. The rest of the respondents (47%) did not advertise

their products owing to insufficient knowledge on purpose of and methods of advertisement. On the other hand, most of them were advocates for the introduction of a label specific to Rodrigues to ascertain the quality of the products and to use it as a marketing tool.

Some agroprocessors were not keen to advertise their products because they considered the market to be too small. Other respondents claimed that the taste, quality, price and the uniqueness of their products were the main attributes that attracted customers and so they did not feel the need to advertise their products. Though the agroprocessors were conscious that the products they manufactured were very common, they continued to produce them for several reasons, the most important one being their long-standing experience and know-how (Table 2). A few also mentioned that since the sale of their existing products already represented an important source of revenue for them, they did not wish to diversify into other products for fear of a drop in their revenue.

Reasons	% of cases
Good experience and know-how	87.3
Ready availability of same type of raw materials	49.1
Uniqueness of the product	44.5
Existence of a clientele	37.3
Low investment for production	30.9
Use of simple technology	23.6

Table 2: Reasons for producing the same products

The agroprocessors faced several marketing problems: unattractive price (80%), limited market (76.4%), inability to sell all their products (71.8%), and the fierce competition prevailing in the sector (37.3%). Other difficulties faced by agroprocessors were related to growing consumers'

exigencies (12.7%) and delays by some customers, hotels in particular, to settle their bills on time (7.3%).

Most of the agroprocessors recognised that product sales could be improved mainly through better product presentation (91%), enhanced product promotion (87.4%), creation of a common selling point for the products (73%) and use of improved labelling (33.3%).

3.2 Cooperatives and Associations

50% of agroprocessors interviewed were willing to form part of a cooperative or an association to benefit from sharing of knowledge and experience, better access to training programmes and other facilities that may accrue (92.2%) from grouping. They also believed that being a member of a cooperative was a means *par excellence* for improving competitiveness (52.9%) and, to a lesser extent, for overcoming the difficulties of working alone (14.6%) and for preventing socio-economic exclusion (3.9%). The remaining 50% were not willing to be members of a group. This was mainly attributed to the rivalry attitudes and conflicts that might arise due to competition (81.3%). Time constraints, lack of trust between partners, ignorance of the potential benefits and ability to cope on their own were other mentioned deterring factors (Table 3).

Reasons	% of cases
Rivalry attitudes and conflicts	81.3
Time constraints	68.8
Ability to cope on their own	14.6
Ignorance of the potential benefits	10.4
Lack of trust between partners	8.3

Table 3: Reasons for not being members of a group

Despite their reluctance to form part of a group, 62% of agroprocessors stated they cooperated with their competitors on an informal basis, by sharing of information (78.3%), raw materials (34.8%) and equipment (20.3%), as well as making joint purchases of raw materials (11.6%), sales (5.8%) and production (2.9%) of agroprocessed products.

3.3 Training of agroprocessors

At the time of the survey, 68% of respondents had followed short training programmes (1-2 weeks) in at least one of the following areas: food processing techniques, food safety and quality, food packaging and labelling. 80% of them reported that it was beneficial as it had enhanced their work skills and helped them to produce better quality product. However, only a few stated that the training had helped them to improve their business management and marketing skills (Table 4).

Training benefits	% of cases
Improved work skills	81.4
Improved quality of products	67.1
Developed new products	50.0
Improved know-how	42.9
Improved business management	4.3
Improved marketing	2.9

Table 4: Respondents' perceived training benefits

Those who had not followed any training programme indicated that they were either not aware of or given an opportunity to follow a training programme (88.5%) while a few mentioned that the time of the training was not suitable to them (11.5%). Only 3.8% of the respondents were not interested as they considered the courses to be unimportant.

The respondents were interested to learn about new processing techniques, development of new products, marketing of products and business management. There was a high demand for training in the following areas: food production/preservation techniques (95%), packaging (82.4%), hygiene/food safety/quality (78.2%), labelling (71.4%), business management (71.4%) and sale and marketing (60.5%).

Agroprocessors obtained information about training opportunities mainly through word-of- mouth (63.3%) or radio (55%) and to a lesser extent from suppliers of raw materials (17.4%), associations (12.8%) and advert panels (5.5%). In many instances, the National Handicraft Producers Association (NHPA) - now merged into the Small Enterprises and Handicrafts Development Authority (SEHDA)-informed them through the phone.

Many respondents believed that radio and television could be the method of choice to inform them about training programmes as well as a means to deliver training courses. They also believed that the training could have a better impact if it was delivered in Creole and if post training assessment and follow-up actions were undertaken.

3.4 Support services

The majority of agroprocessors were aware of the various institutions that provided some type of support services (e.g., training, financial assistance, technical advice, and business information) to individuals, small businesses and entrepreneurs in Rodrigues. These included the Small and Medium Industries Development Organization (SMIDO), the NHPA (both agencies have now been merged into SEHDA), the Development Bank of Mauritius (DBM), the National Women Entrepreneurship Council, the Human Resource Centre, the Ministry of Women's Rights, Child Development & Family Care, the Ministry of Commerce & Cooperatives (MoCC), the

Commission for Agriculture (CoA) as well as associations/cooperatives of agroprocessors, some of which were better known than others (e.g., NHPA, DBM and CoA). The support received by respondents was mostly from the NHPA (46.2%) and to a lesser extent the SMIDO (23.5%), DBM (22.7%), CoA (21%), MoCC (21%) and associations/cooperatives (17.6%). These included field visits, talks on entrepreneurship, training, participation in food exhibitions/fairs and advice on business expansion and sources of financial assistance.

The agroprocessors wished to avail of the following services to develop their businesses: loan facilities (73.9%) to buy equipment (96.4%) or to consolidate their processing units (77.4%) or improve the workplace (17.9%). They required more information (96.6%) on type and sources of equipment as well as sources of raw materials. Many respondents (79.8%) also emphasised the need for more training. Training in business and financial management was most frequently requested.

3.5 Innovation Strategies

68% of the agroprocessors had tried to innovate their businesses. The main innovation strategies were related to development of new products, designing new product labels and using more attractive packaging materials (Figure 1). Those who had never innovated (31.9%) reported that lack of know-how, insufficient support and lack of finance were their main constraints.

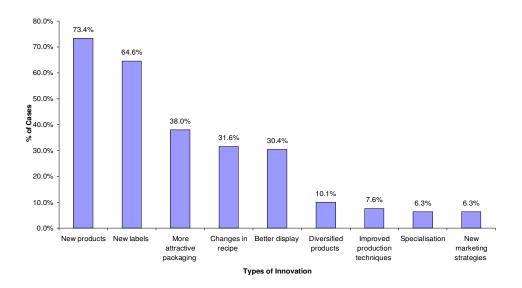


Figure 1: Types of innovation practices

4.0 DISCUSSION

4.1 Marketing of products

Most of the agroprocessed products were sold by the producers themselves without relying on intermediaries. This type of marketing has also been reported in other countries where smallscale agroprocessing is an important economic activity (Dietz, Matee and Ssali, 2000; Mhazo *et al.*, 2003). This marketing strategy is advantageous as the profit margin of the agroprocessors is higher than selling through an intermediary. There were several sale outlets through which these products were sold. They were mainly scattered in Port Mathurin - capital of Rodrigues, especially within the vicinities of the market place and the main bus station where most economic activities and some tourism activities are carried out. Fairs and exhibitions organised locally and internationally by the support institutions represented other important sales outlets. It is believed that their participation in these events has contributed to increase the agroprocessors' understanding of the importance of product quality, appearance, packaging in promoting sales.

Since there is low local demand on the Rodriguan market for these products and as most of them are sold to tourists visiting the island, it is crucial that the products are advertised properly. Advertising is known to raise consumer's awareness, generate a favourable product image and promote long term sales (Fellows & Axtell, 2001; Prameela & Husain, 2007). In this survey, the agroprocessors did not have any planned strategies for advertising their products as such. The products were promoted mainly through word-of-mouth. Although it is considered as the cheapest and primary form of effective promotion, it is also a quicker way to make consumers aware of bad quality products as well (Fellows, Franco and Rios, 1996). Over the past years, a series of initiatives/events such as fairs and exhibitions, TV programmes, Rodriguan Food Week, articles in 'in-flight' brochures and increased influx of travellers to Rodrigues, have raised the awareness of consumers on these products. While the combined effects of these events may have increased awareness and demand for these Rodriguan products over the past years, there are still few places where visitors can purchase agroprocessed products once the fairs are over or once they have left the island.

The agroprocessors produce identical or relatively identical products with little product differentiation. This situation could be due to the producers' perceived needs of the market. In fact, no market research has been carried out to gain knowledge on the customers' likes and dislikes in terms of types of products, taste, appearances price and size of packages of products. Scientific market research is essential to understand the requirements of the consumers/market (Shepherd, 2003). Although the market research can never guarantee success, it is an important input into making decisions on what to produce and at what at price to sell them (Shepherd, 2003). Under the present marketing arrangement, it is postulated that some agroprocessors may get direct feedback from their customers' likes and dislikes. However,

Dietz *et al.* (2000) reported that as little or no feedback on consumer reaction to a product, filtered back to the agroprocessors through this route in Tanzania and Uganda. Hence it is best to gather this information through a formal market research.

Market information (e.g., information on prices, availability of raw material, market potential) is an important support service to facilitate marketing (Atkinson *et al.*, 2000; Shepherd, 2000). The survey has revealed that there were no institutions that provided market information. This handicaps the expansion of the market. Indeed, similar problems have been reported by Mhazo (2003) in Zimbabwe and Jairath (1996) in India.

Past studies on the marketing of Rodriguan products have highlighted the importance of setting up an institution to develop an efficient marketing system and advertisement for these products to alleviate some of the abovementioned constraints (MAFNR, 2002; Vakakis, 2004; FAO/NEPAD, 2005). In this context, the Rodrigues Regional Assembly (RRA) has recently set up a Trade and Marketing Agency. Its main functions will be to market and export Rodriguan agricultural and sea products; to maximize the use of incentives and infrastructure in relation to the production and export of agricultural products and to undertake or commission promotion campaigns and market studies. However, the setting up of such an institution would not necessarily guarantee sales of all agroprocessed products. The agroprocessors would be required to satisfy regulations, set by the agency governing, manufacturing practices, food safety and quality in order to benefit from the facilities offered by the agency.

4.2 Pricing mechanisms and cost of production

The reason for determining the cost of production is to set a price that would generate sufficient profit (Shepherd, 2003; Fellows & Rottger, 2005) and to

sell on the market (Fellows *et al.*, 1996). Many producers do not calculate the production costs of the products because they believe that is too complicated or too difficult (Fellows & Rottger, 2005). In this survey, similar problems were noted through the in-depth interviews. Most of the agroprocessors did not calculate their cost of production and consequently may not be selling their products at the correct price, resulting in a wide range of prices for the same type of products.

Many of the agroprocessors complained about the low prices of their products. This could be partly due to the fact that many of them sold more or less identical products. Similar findings were reported by Dietz *et al.* (2000) and Atkinson *et al.* (2000). In such a situation, the agroprocessors find themselves in a weak position on the market, as customers can choose among the broad range of more or less similar products on sale. Under such circumstances, most agroprocessors simply try to undercut their competitors by fixing a price level based on the general prevailing market price, without due consideration to their true cost of production. Such a pricing technique can result in low profit or loss which may in turn hinder the expansion of the enterprises.

This study could not ascertain whether the agroprocessors were making a profit or loss. The actual cost of production could not be calculated as most of the agroprocessors did not keep financial, production and sale records. However, data from this survey suggest that the sector is profitable as many agroprocessors (54%) have been producing these products for quite a long time on a full time basis. Further study is warranted to assess the profitability of this sector. Processing enterprises at all scales of operation need to keep financial records such as account book and a cash book (Fellows & Rottger, 2005). These are vital records for even a small business, for monitoring and evaluating its progress.

4.3 Export potential of agroprocessed products

Rodriguan agroprocessed products are often promoted as having unique organoleptic properties to enter international markets. However these qualities are not enough to promote these products on high quality markets such as Europe or elsewhere. In fact, the regulatory environments in these countries with respect to product quality, food safety and phytosanitary measures are so strict that it is very difficult to gain market access. This export potential could nevertheless be harnessed if the agroprocessors adopt good manufacturing practices and food quality assurance schemes that comply with the food regulations of the importing countries. However as the study has shown most of the producers have not put in place any food quality assurance schemes (e.g., HACCP) and this represents a serious barrier to penetrate successfully these markets.

Given the present level of awareness for these products among Mauritians, these products could easily penetrate the local market. However, with the increasing number of new entrepreneurs being engaged in agroprocessing in Mauritius and the imports of similar products (for example, pickles, jam) Rodriguan products may face fiercer competition on the Mauritian market.

Most of the processors preferred to sell their products in bulk and are also not able to satisfy large demands from known food distributors in Mauritius. The main factors that hinder their capacity to produce and sell in bulk are that most of the enterprises are home-based, they lack appropriate equipment for mass production and do not have adequate supplies of raw materials. These are the main reasons why they cannot produce in large quantities and hence to sell in bulk.

4.4 Creation of a Rodriguan Label

One of the strategies envisaged to promote Rodriguan agroprocessed products is through the creation of a Rodriguan label. The use of a label as pointed out by Fellows *et al.* (1996) can develop a brand image for a product, increase its popularity and increase consumer confidence in the products. The creation of a label will encourage producers to adopt appropriate manufacturing practices in order to qualify for the label. However, there may still be some producers who will not satisfy the required standards for the award of the label and yet will still sell their products on the markets. This may lead to unfair competition. It is therefore crucial that an appropriate mechanism for the award of the label be worked out in collaboration with the agroprocessors so that all of them may benefit from this innovation.

4.5 Training of agroprocessors

Training and skill development of enterpreneurs are vital ingredients for the successful development of enterprises (Battcock *et al.*, 1998). A number of courses have been run mainly by the NHPA, now SEHDA, to upgrade the skills and knowledge of agroprocessors in food preservation techniques (e.g., pickling, preparation of sugar-based products) and food hygiene and quality. In some cases, the agroprocessors have complained that the level of the courses did not match their needs as they had prior knowledge and experience. This is possible as the survey has revealed that the agroprocessors have different levels of skills and knowledge in food processing. This is bound to create different levels of interest and understanding. It is postulated that this could have been due to the lack of a preliminary training needs assessment. Indeed, Battcock *et al.* (1998) highlighted that before planning and designing a training programme, it is necessary to identify the training needs of the participants as precisely as possible. Another factor that governs the success or failure of the training is

the selection of the most appropriate participants. Given that all training courses are different and the participants potentially have different needs, they should be carefully selected to ensure that they get the most out of the training programmes (Battcock *et al.*, 1998).

Over the past years, many school leavers had been trained in some aspects of food preservation techniques. However, many of them have not been able to set up their own agroprocessing enterprise. Most probably they might not have been fully aware of the opportunities and support mechanisms that exist or the courses might not have been adequate to equip them with the required skills to start an enterprise. Indeed, Fellows (1996) highlighted that the emphasis in many food processing training programmes is too much on the techniques of production rather than on developing business and marketing skills of the participants.

On the other hand, no training courses have been run for the producers of raw materials to sensitise them on the importance of producing good quality raw materials for processing. This would have ensured that they understand the processors' needs in terms of quality, grades and varieties. The producers would have been motivated to produce quality raw materials and also build stronger partnerships with the agroprocessors.

Agroprocessors expressed a marked preference for training programmes and advice on agroprocessing delivered via radio broadcasting. This medium of communication has proved to be useful in other training programmes in Rodrigues (In-depth interview with the CoA). Through the radio, a large proportion of the agroprocessors can be reached instantaneously at a relatively low cost. Other possible avenues for delivery of training could be the publication and distribution of pamphlets (CTA, 2006).

4.6 Innovation Strategies

The study has revealed that 68% of the agroprocessors had brought about some innovations in their enterprises. These innovations included new product development, better product packaging and labelling, improved displays of products, product diversification among others. The drive for innovation may have been enhanced by their participation in training courses and/or in international and national fairs where they may have gathered new ideas for innovating in their enterprises.

4.7 Cooperatives and associations

Literature abounds in information about the crucial economic role which cooperatives and associations play in developing smallholder agricultural and food enterprises in many parts of the world. This relates to collective marketing of farm produce, collective purchase of inputs, sharing of risks, collecting and transferring market information and exchange of technical knowledge (Barton, 1989; Bosc et al., 2001; Bijman, 2007). A number of women's associations have been formed all over the island. The main objectives are to share knowledge, provide technical and financial assistance and to discuss managerial problems with the members. However, a majority of these associations are not fully engaged in agroprocessing as their members are also involved in other economic activities such as sewing and handicrafts. Lately, a new association, called "Forum", has been created to group women entrepreneurs, in a wide range of economic activities. Its main objectives are to share information and help the entrepreneurs to specialise in their respective fields. In contrast to the other associations, it plays a key role in facilitating communication with the support institutions. Many members are conscious that this way of networking can bring more rapid and positive results than acting individually.

The agroprocessors had expressed different views on the benefits of forming or joining a cooperative. About 50% of the agro-processors were not willing to form part of a group or cooperative. This lack of willingness is associated with their previous bad experiences (e.g., weak management, mistrust, lack of loyalty by the members) they had in working together, as highlighted by many of the agroprocessors during the interviews.

The launching of a school feeding programme project to supply processed food products (for example, juice, vegetables pickles) in schools has been an incentive for some agroprocessors to form a few cooperatives in the different parts of the island. Only cooperatives were allowed to participate in this project. This demonstrates that if the benefits are readily seen or explained, the agroprocessors would be willing to be members of either an association or cooperatives.

4.8 Support services

The agroprocessors were aware of the different support institutions that exist to help them develop their enterprises. However, none of the institutions support e the agro-processing industry exclusively. Very few agroprocessors have taken advantage of their services, except for the training courses. For example, although, 75% have indicated that they required loans to further develop their enterprise, very few of them had benefited from the financial incentives offered by the Development Bank of Mauritius. In fact, the survey has shown that most of the agroprocessors lacked collaterals and development permit/licence to seek financial assistance from the bank. This is viewed as a serious barrier to further development of the sector. There is also a high demand for information with respect to type and source of equipment and training matters.

5.0 CONCLUSION

The marketing and pricing mechanisms of the agroprocessed products, the training of the agroprocessors, their innovative practices and the provision of services to the sector have been discussed in this paper. The marketing and marketing information system are not properly organized. Marketing of the products is mainly carried out by the agroprocessors themselves. There is also a lack of market information and no market research on the consumers' likes and dislikes for these agroprocessed products. The cost of production of these products is not calculated and this is reflected in the wide range of prices for almost the same type of products. Several training programmes have been run to upgrade the skills and competencies of the agroprocessors in a range of areas such as manufacturing practices, food hygiene and safety and entrepreneurial skills but no appropriate follow-up and post-training evaluation have been carried out. Many agroprocessors are willing to form part in a cooperatives or an association but there is still a good proportion of them who are not keen to do so. Several support institutions are present to provide services such as finance, training, technical advice to the small and medium enterprises, including the agroprocessing sector However, none of them provide an exclusive service to the agroprocessing sector.

6.0 RECOMMENDATIONS

It is postulated that the successful development of the agroprocessing sector in Rodrigues depends on the following key initiatives: establishment of an efficient mechanism for the promotion and sale of the agroprocessed products on the main markets, development of appropriate training programmes and the enhancement of the support services offered to this sector.

6.1 Marketing

A large proportion of visitors to Rodrigues have missed out on opportunities to purchase agroprocessed products because of the current marketing approach. One of the strategies that could boost up sales and promotion of these products is to set up a central shop in Port Mathurin with all the necessary amenities and facilities to display and sale of products in a fashionable, friendly and attractive environment. This would also avoid frequent transfer of produce from agroprocessors' place of residence to sale outlets and hence preserve the quality and safety of the products.

The creation of the Trade and Marketing Agency (TMA) is expected to improve both the quality and marketing of the products. However it is essential that the TMA should develop close relationships and partnerships with the producers to schedule production of processed products. The agency should work in close collaboration with the forthcoming food testing laboratory and the health commission in Rodrigues to ensure that quality and safe products are put on sale. It could also play an important role in the supply of labels and packaging materials. In the short term, the TMA may focus on promoting the marketability of these products on the Mauritian and Rodriguan markets. It will also need to carry out market research on customers' preferences and dislikes for these products.

6.2 Training Programmes

With the increasing emphasis being given to this sector, new courses must address emerging training needs arising from the development of the sector. Some of the potential training areas identified are: food processing, food quality, business management and entrepreneurship skills, financial planning and marketing strategies, cost of production and record keeping. These courses can be mounted in collaboration with the main institutions in Mauritius such as University of Mauritius, the Agricultural Research and

Extension Unit and SEHDA. The training organisers should choose the right trainees and develop training programmes that match the level of competence and knowledge of the agro-processors and have an in-built evaluation scheme. Such practices will ensure that the training programmes are relevant and have the desired impact. Appropriate mechanisms need also to be developed to ensure a proper follow-up of the trainees and assist them in implementing what they have learned.

6.3 Cooperatives and Associations

Associations/cooperatives can play a more active and greater role in spearheading the development of this sector. They can play a greater role in determining the needs of the sector and lobby for policies that are conducive to the development of the agroprocessing sector. It is thus important that appropriate campaigns be carried out to sensitise the agroprocessors on the benefits of groupings and to strengthen existing groups (e.g., by bringing in new members).

6.4 Support Institutions

At present, the support institutions are dedicated to small-scale enterprises involved with all types of manufacturing companies including agroindustries. None of them are specifically geared towards providing services to agroprocessors. It is reckoned that the development of the small-scale food processing sector would be more effective if there are specialised sections in the various support institutions for this sector to address the needs of the agroprocessors in a more timely and efficient manner.

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8.0 REFERENCES

- ATKINSON, K., SAASA, O., CARDOSO, M.J. & HILL, N. (2000). Small-scale food processing in Mozambique, South Africa and Zambia: addressing information and communication management needs for sector development. CTA Publications, Wageningen, The Netherlands.
- BATTCOCK, M., AZAM-ALI, S., AXTELL, B. & FELLOWS P.J. (1998). Successful approaches to training in food processing.
 Intermediate London Technology Publications, London, UK.
- BARTON, D.G. (1989). What is a cooperative? In *Cooperatives in Agriculture*, pp 1-20. (ed Cobia, D. W.) Prentice-Hall, Inc., New Jersey.
- BIJMAN, J. (2007). How can cooperatives meet the challenges of agrifood supply chains? In: Producer organisations and market chains. In *Facilitating Trajectories of Change in Developing Countries*, pp 91-115 (Eds. G.Ton, J. Bijman and J. Oorthuizen). Wageningen Academic Publishers, The Netherlands,.
- BOSC, P.M., EYCHENNE, D., HUSSEIN, K., LOSCH, B., & MACINTOSH-WALKER, S. (2001). The role of rural producers organisations (RPOs). World Bank Rural Development Strategy Background Study, Washington, DC.
- CTA (2006). Role of audiovisual media, mobile phones, printed documents and advertising in managing SMEs. In Seminar Report 'Role of Information and Communication in the development of small and

medium sized food processing enterprises in Africa'. CTA Publications, Wageningen, The Netherlands.

- DIETZ, H. M., MATEE, S., & SSALI, W. (2000). In Study Report Assessment of the small-scale food processing subsector in Tanzania and Uganda. CTA Publications, Wageningen, The Netherlands.
- FELLOWS, P.J. & HAMPTON, A. (1992). Small-scale food processing: A guide to appropriate equipment. Intermediate Technology Publications, London, UK.
- FELLOWS, P.J., FRANCO, E. & RIOS, W. (1996). Starting a small food processing business. Intermediate Technology Publications, London, UK.
- FELLOWS, P.J. & AXTELL, B. (2001). Opportunities in food processing- Setting up and running a small food business. CTA Publications, Wageningen, The Netherlands.
- FELLOWS, P.J. & ROTTGER, A. (2005). Business management for small-scale agro-processor. Agricultural Management, Marketing and Finance Service (AGSF), Agricultural Support Systems Division, FAO Rome.
- GOBURDHUN, D., BOODHOO, K. & RUGGOO, A. (2009). An appraisal of the small-scale agroprocessing sector in Rodrigues. Part 1: Manufacturing practices and product quality. Submitted for publication.
- JAIRATH, M. S. (1996). Agro-processing and infrastructure development in hilly area:

A case study of fruit and vegetables processing. *Indian Journal of Agricultural Marketing* **10** (2): 28-46.

- LUBOWA, M. (1998). Marketing in small and medium scale food processing enterprises. In *Proceedings "Strategies for strengthening small-scale food processing enterprises in Eastern and Southern Africa"*. CTA Publications, Wageningen, The Netherlands.
- MHAZO, N., HANYANI-MLAMBO, B., PROCTOR, S. & NAZARE, M. (2003). Constraints to small-scale production and marketing of processed food products in Zimbabwe- the case of fruits and Vegetables. Food Africa, Retrieved May 26, 2009 from http://foodafrica.nri.org.
- MAFTNR, (2002). A Sustained Programme for Agricultural Diversification in Rodrigues". In "Non-Sugar Strategic Plan 2003– 2007". Ministry of Agriculture, Fisheries and Natural Resources (MAFTNR), Republic of Mauritius.
- PRAMEELA, V & HUSAIN, A.S. (2007). Consumer choice of branded agro-processed products in Kannur municipality of Kerala state. *Journal* of Tropical Agriculture 45 (1-2), 72-74.
- SHEPHERD, A.W. (2000). *Understanding and using market information*. Marketing Extension Guide No.2, FAO, Rome.
- SHEPHERD, A.W. (2003). *Market research for agroprocessors*. Marketing Extension Guide No.3, FAO, Rome.
- VAKAKIS INTERNATIONAL S.A. (2004). Market Study in Rodrigues. EU report under the 8th ACP MAS 003 Programme.