CHALLENGES AND PROSPECTS FOR SUSTAINABLE DEVELOPMENT OF AGRICULTURE AND AGRIBUSINESS IN FIJI ISLANDS

Sunil Kumar
School of Economics
The University of the South Pacific
Suva, Fiji

kumar_ss@usp.ac.fj

and

Jagdish Bhati
School of Economics
The University of the South Pacific
Suva, Fiji

bhati_j@usp.ac.fj

No. 2010/09 December, 2010

This paper presents work in progress in the School of Economics at USP. Comments, criticisms and enquiries should be addressed to the corresponding author.
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Sunil Kumar and Jagdish Prasad Bhati

1 Dr. S. Kumar and Dr. J.P. Bhati teach at the School of Economics, Faculty of Business & Economics, University of the South Pacific, Suva, Fiji Islands. They can be contacted by email addresses given [Email: kumar_ss@usp.ac.fj and bhati_j@usp.ac.fj].
Abstract

More than 45% of Fiji’s population lives in the rural areas and a significantly large proportion lives on meager income. There have been many efforts in the past to improve rural economy in Fiji but only limited successes have been achieved. There are many constraints that hinder sustainable development of this sector. A wide range of well designed policies are needed to increase primary production and simultaneously develop sustainable agribusiness enterprises to add value and generate more rural income. This paper analyses these issues and delves on policy prescriptions to create the right business environment to encourage agripreneurs to boost farm production through scientific commercial farming. It further argues that strengthening agribusiness linkages with small-scale farmers would provide both the basis and means of rural economy contributing to poverty reduction and sustainable development.

Key words: Agricultural problems, Agricultural policies; Agri-business supply chains; Agripreneurship development.
1. Introduction

Fiji has 333 islands with a land area of 18,333 sq. km. and a population of 837,300 as of 2007 (BIBOS 2008). Its two largest islands Viti Levu and Vanua Levu make up seven-eighths of the total land area. The rural economy in Fiji is declining and the interest among people to engage in farming is also declining. The hope to revive the rural economy gets dimmer as new problems facing the Fiji Sugar Corporation (FSC) keeps surfacing (Prasad 2010). The livelihood of a large percentage of farmers depending on the sugar industry is in danger if the appropriate development approach is not taken for long term sustainability of the sugar industry (Fiji Islands Business 2010). Thus, the challenge facing development planners in Fiji to strengthen and diversify the rural economy is enormous. The long term strategy which would entail more productive agricultural sector and sustainable development of agribusiness are needed to expand and diversify rural economy and to domestic market broadening (ADB 2010; Naude 2010; Oxfam 2010; Prasad 2010; Qamar 2005). Strengthening the rural sector and establishing new agribusinesses enterprises would provide a sound basis for the growth of the Fijian economy. However, this process of economic transformation and expansion is likely to be severely hampered by various inherent constraints such as land tenure, lack of investments and many other challenges faced by the agricultural sector (Prasad and Kumar, 2000; Barbour and McGregor 1998; Ward and Proctor 1980). The economic context within which farm production and agribusiness occurs currently, needs to change to boost rural entrepreneurship and to allow farmers to exercise commercial farming systems on a sustainable basis.

The main objective of this paper is to highlight the major problems faced by agri-entrepreneurs in Fiji and to suggest policy measures so as to provide a framework that would allow farmers to shift from traditional farming systems to a more productive commercial mode.

The paper is organized in five parts. The next part provides an overview of the agricultural sector in Fiji. In the third part factors hindering domestic production of farm products are discussed. The fourth section outlines a policy framework to overcome the constraints faced by farmers and to boost growth of agribusiness entrepreneurs that could give rise to required development and diversification of the rural economic system in Fiji. The final section provides summary and conclusions of the paper.
2. An Overview of Agricultural Sector in Fiji

2.1 Agriculture’s Economic Significance

Table 1 shows the contributions of different sectors to the gross domestic product of Fiji. It is clear from the table that manufacturing and services sector are dominant but agricultural sector is also a major contributor to the economy. Agriculture (inclusive of fisheries and forestry) contributes around 15 percent to the gross domestic product. Table 2 shows further breakup of the agricultural sector to its components. The crop component consists of sugarcane, dalo, cassava, ginger and coconut, rice and vegetables. It is observed that the subsistence sector forms a significant component of agricultural production. Since 2006 the agricultural crops in Fiji have shown decline.

<table>
<thead>
<tr>
<th>Sectors</th>
<th>2006</th>
<th>Share of GDP</th>
<th>2007</th>
<th>Share of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>345360</td>
<td>11.3%</td>
<td>342372</td>
<td>11.2%</td>
</tr>
<tr>
<td>Fishing</td>
<td>78989</td>
<td>2.6%</td>
<td>66310</td>
<td>2.2%</td>
</tr>
<tr>
<td>Forestry</td>
<td>34720</td>
<td>1.1%</td>
<td>33429</td>
<td>1.1%</td>
</tr>
<tr>
<td>Mining &amp; Quarrying</td>
<td>15092</td>
<td>0.5%</td>
<td>312</td>
<td>0.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>437416</td>
<td>14.4%</td>
<td>442351</td>
<td>14.5%</td>
</tr>
<tr>
<td>Electricity &amp; Water</td>
<td>122073</td>
<td>4.0%</td>
<td>122564</td>
<td>4.0%</td>
</tr>
<tr>
<td>Construction</td>
<td>191849</td>
<td>6.3%</td>
<td>152367</td>
<td>5.0%</td>
</tr>
<tr>
<td>W/sale &amp; Ret &amp; Hotels, Res.</td>
<td>551104</td>
<td>18.1%</td>
<td>523009</td>
<td>17.2%</td>
</tr>
<tr>
<td>Transport &amp; Communications</td>
<td>403707</td>
<td>13.2%</td>
<td>391514</td>
<td>12.8%</td>
</tr>
<tr>
<td>Finance</td>
<td>130391</td>
<td>4.3%</td>
<td>120044</td>
<td>3.9%</td>
</tr>
<tr>
<td>Insurance</td>
<td>81328</td>
<td>2.7%</td>
<td>79641</td>
<td>2.6%</td>
</tr>
<tr>
<td>R/Estate &amp; Bus. Services</td>
<td>216640</td>
<td>7.1%</td>
<td>220898</td>
<td>7.2%</td>
</tr>
<tr>
<td>Personal &amp; Household Services</td>
<td>57461</td>
<td>1.9%</td>
<td>58020</td>
<td>1.9%</td>
</tr>
<tr>
<td>Social &amp; Community Services</td>
<td>520971</td>
<td>17.1%</td>
<td>521943</td>
<td>17.1%</td>
</tr>
</tbody>
</table>

| Table 2: Contribution of Agriculture Sector to Gross Domestic Product (at Factor Cost 1995 Prices) |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| Year      | 2003  | 2004  | 2005  | 2006  | 2007  | %Δ 2004 | %Δ 2005 | %Δ 2006 | %Δ 2007 |
| Total Agriculture | 434,576 | 457,188 | 461,406 | 459,070 | 442,110 | 5.2 | 0.9 | -0.5 | -3.7 |
| Agriculture | 334,620 | 342,055 | 342,475 | 345,360 | 342,372 | 2.2 | 0.1 | 0.8 | -0.9 |
| Crops      | 187,257 | 193,087 | 192,644 | 190,564 | 188,460 | 3.1 | -0.2 | -1.1 | -1.1 |
| Sugarcane  | 121,070 | 122,331 | 114,813 | 121,157 | 104,340 | 1 | -6.1 | 5.5 | -13.9 |
| Other Crops| 66,187  | 70,756  | 77,831  | 69,407  | 84,121  | 6.9 | 10 | -10.8 | 21.2 |
| Livestock  | 19,019  | 19,957  | 20,511  | 23,913  | 24,213  | 4.9 | 2.8 | 16.6 | 1.3 |
| Subsistence| 120,528 | 121,296 | 121,808 | 122,415 | 122,756 | 0.6 | 0.4 | 0.5 | 0.3 |
| Public Sector | 7,815   | 7,714   | 7,512   | 8,468   | 6,943   | -1.3 | -2.6 | 12.7 | -18 |
| Fishing Sector | 61,959  | 77,039  | 82,578  | 78,989  | 66,310  | 24.3 | 7.2 | -4.3 | -16.1 |
| Fishing    | 33,465  | 48,356  | 53,844  | 50,155  | 37,270  | 44.5 | 11.4 | -6.9 | -25.7 |
| Subsistence| 27,552  | 27,728  | 27,845  | 27,983  | 28,061  | 0.6 | 0.4 | 0.5 | 0.3 |
| Public Sector | 942     | 955     | 889     | 851     | 979     | 1.4 | -6.9 | -4.3 | 15 |
| Forestry   | 37,997  | 38,094  | 36,353  | 34,720  | 33,429  | 0.3 | -4.6 | -4.5 | -3.7 |
| Forestry   | 20,736  | 20,700  | 18,936  | 17,175  | 15,945  | -0.2 | -8.5 | -9.3 | -7.2 |
| Subsistence| 16,626  | 16,732  | 16,803  | 16,887  | 16,934  | 0.6 | 0.4 | 0.5 | 0.3 |
| Public Sector | 635     | 662     | 614     | 659     | 550     | 4.2 | -7.2 | 7.3 | -16.5 |
| Total GDP  | 2,784,385 | 2,935,383 | 2,897,585 | 3,047,538 | 2,946,284 | 5.4 | -1.3 | 5.2 | -3.3 |


2.2 Rising Agricultural Imports:

In the analyses of demand and supply of agricultural products provide a framework for judging the success and failures of national agricultural policies. Data on Fiji’s exports and imports of agricultural products are presented in Table 3. Fiji’s main agricultural exports are sugar, root crops (dalo, cassava), spices (chilies) and processed wheat and cereals. The major imported crop products are wheat, rice, vegetables, fruit and nuts. The imports of food stuff include livestock products such as meat and milk products.

Data reveal that Fiji’s import bill of agricultural products has a rising trend because domestic production of food products is not keeping pace with the rising domestic demand and thus the quantities of imported food items have been increasing (see Table 3). The food import trend is expected to worsen as the urbanization of Fiji’s population continues into the next two decades.
Moreover, in recent years, the movement toward more free trade and the “globalization” of economic activity is also playing an important role in imports. Globalization and the lowering of barriers to international trade and investment allowed international corporations to roam around the world seeking more profitable business opportunities. In the case of Fiji, key domestic sectors such as rice, milk and meat have been subjected to global competition.

### Table 3: Exports and Imports of agricultural products, 2002–2005 (US Dollar ‘000)

<table>
<thead>
<tr>
<th>Product (1)</th>
<th>Exports (2)</th>
<th>Imports (3)</th>
<th>Balance (2-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat &amp; cereals</td>
<td>12,755</td>
<td>24,904</td>
<td>(-) 12,145</td>
</tr>
<tr>
<td>Rice</td>
<td>304</td>
<td>11,074</td>
<td>(-) 10,770</td>
</tr>
<tr>
<td>Roots, other products</td>
<td>13,543</td>
<td>--</td>
<td>(+) 13,543</td>
</tr>
<tr>
<td>Vegetables</td>
<td>--</td>
<td>19,680</td>
<td>(-) 19,680</td>
</tr>
<tr>
<td>Fruits and nuts</td>
<td>724</td>
<td>4,119</td>
<td>(-) 3,395</td>
</tr>
<tr>
<td>Sugar</td>
<td>120,745</td>
<td>3,075</td>
<td>(+) 117,670</td>
</tr>
<tr>
<td>Spices</td>
<td>3,966</td>
<td>1,279</td>
<td>(+) 2,687</td>
</tr>
<tr>
<td>Total crop products</td>
<td>152,037</td>
<td>64,131</td>
<td>(+) 87,906</td>
</tr>
<tr>
<td>Live animals</td>
<td>54</td>
<td>569</td>
<td>(-) 515</td>
</tr>
<tr>
<td>Meat of bovine</td>
<td>9</td>
<td>3,256</td>
<td>(-) 3,247</td>
</tr>
<tr>
<td>Other meat</td>
<td>4,329</td>
<td>20,230</td>
<td>(-) 15,901</td>
</tr>
<tr>
<td>Eggs and birds</td>
<td>72</td>
<td>1,383</td>
<td>(-) 1,311</td>
</tr>
<tr>
<td>Milk and milk products</td>
<td>866</td>
<td>18,800</td>
<td>(-) 17,934</td>
</tr>
<tr>
<td>Total livestock products</td>
<td>5,330</td>
<td>44,238</td>
<td>(-) 38,908</td>
</tr>
</tbody>
</table>

Source: International Trade Statistics, ITC, UNCTAD/WTO, 2002-2005

### Table 4: Absorption of Imported Food Products in Fiji (‘000s of FJD)

<table>
<thead>
<tr>
<th>Broad Category of Food</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Food Product</td>
<td>57,387</td>
<td>55,711</td>
<td>63,219</td>
<td>69,493</td>
<td>85,350</td>
<td>73,287</td>
</tr>
<tr>
<td>Processed Food</td>
<td>205,558</td>
<td>206,709</td>
<td>202,775</td>
<td>199,578</td>
<td>260,095</td>
<td>300,394</td>
</tr>
<tr>
<td>Total Absorption</td>
<td>262,945</td>
<td>262,420</td>
<td>265,994</td>
<td>269,071</td>
<td>345,445</td>
<td>373,681</td>
</tr>
</tbody>
</table>


Data in Table 3 shows that Fiji is heavily deficient in production of vegetables, rice, and milk and meat products. However, this should not have been the case for Fiji to be importing such agricultural products as it has sufficient agricultural resources like land, labour, climate as well as human resources (Prasad 2010).
This domestic supply-demand mismatch of food products is often more common in countries where storage facilities are not available and/or government intervention policies are nonexistent. Farmers normally attempt to produce and sell commodities that cover the cost of production and marketing, including at least a small net return, or profit, for their effort. While the idea of profit maximization is there, the choice of how much to produce at any one time is limited by the response delay. In other situations farmers are not able to match the demand for agricultural commodities in the short run with a supply response to avoid shortages in the market. This condition is prevalent in the vegetable market of perishable commodities such as greens leafy vegetables and fresh beans. Such shortages cause alarm among urban dwellers who constantly depend upon local supply of such food commodities. Prolonged shortages and the inability of farmers to respond quickly to variations in the food demand are normally construed as food security issue. Such issues are not well understood in Fiji or other Pacific Island countries and government facilities for storage and preservation are basically nonexistent. Although Fiji does not normally face prolonged extreme whether conditions, farmers frequently face serious problems responding to the market demand on a continuous basis.

In view of this agricultural situation, the dependence on traditional farming methods in Fiji needs change towards more productive methods with application of appropriate scientific technology and knowledge about crops, soil, and the environment. This process however is not easy. A long term development strategy needs to be established. The current policy documents of the Ministry of Agriculture and the information made available on the public domain seem to reflect this quite well (see for instance MPI, 2010b). However, the process of agricultural transformation is severely constrained by various factors, first, by the land tenure issues constrained by the current land legislation and secondly, the lack of confidence amongst investors due to political instability in the country, which hinders long term strategies. This partly explains why Fiji imports so much. To formulate an effective action plan for boosting production of farm products to meet the local demand as well as for export, it is essential to understand the problems faced by the farmers.
3. Factors Affecting Supply of Domestic Agricultural Products

The assessment of needs and priorities of farmers provides the development planners with a broad framework for understanding the range of issues involved in bringing about substantial changes to the farming systems that could improve the farmers’ supply responsiveness to the market prices and market stimulus. Adopting this approach to agricultural development with well-designed programs would reduce the current problems of demand and supply mismatch and substantially address the problems of price instability in the domestic market. In the following sub-sections, the challenges and constraints of farmers in production and marketing of agricultural products are identified. Data summarized in Table 5 are based on various field surveys conducted in Fiji. Since problems for farmers differ according to the agricultural products produced by them, the following discussion is organized according the major farm products of Fiji.

<table>
<thead>
<tr>
<th>Problems identified by farmers</th>
<th>Problems of farmers producing:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sugar cane</td>
</tr>
<tr>
<td>1. Insecure Land Tenure</td>
<td>✓</td>
</tr>
<tr>
<td>2. Lack of Irrigation Facilities</td>
<td>✓</td>
</tr>
<tr>
<td>3. Lack of Credit Facilities</td>
<td>✓</td>
</tr>
<tr>
<td>4. High Cost of Inputs—fertilizer, feed, etc</td>
<td>✓</td>
</tr>
<tr>
<td>5. Lack of skills for modern Farm Practices</td>
<td>✓</td>
</tr>
<tr>
<td>6. Lack of Road Networks in Rural Areas</td>
<td>✓</td>
</tr>
<tr>
<td>7. Lack of Transportation Facilities</td>
<td>✓</td>
</tr>
<tr>
<td>8. Lack of Marketing Yards/centers</td>
<td>✓</td>
</tr>
<tr>
<td>9. Lack of Processing Facilities</td>
<td>✓</td>
</tr>
<tr>
<td>10. Unscrupulous Behavior of Marketing Agent</td>
<td>✓</td>
</tr>
<tr>
<td>11. High Cost of Marketing</td>
<td>✓</td>
</tr>
<tr>
<td>12. Lack of Storage and Preservation Facilities</td>
<td>✓</td>
</tr>
<tr>
<td>13. Lack of Marketing Information</td>
<td>✓</td>
</tr>
</tbody>
</table>

Sources: Problems have been identified from the information given in: Aregheore et al. (2001); Aregheore et al. (2008); Bolasui (2008); Nacoke (2007); Prasad (2008); Remudu (2006); and Vorelevu and Bhati (2006).

3.1 Problems of Sugarcane Farmers

In Fiji, during the last two decades, sugarcane farmers lacked appropriate support from the government. Lal (2009) reports that combined with lack of land tenure security and the absence of good extension services, farmers have lost interest in sugar cane production. Furthermore,
cost of cane production is increasing due to price of fertilizer, misapplication of fertilizer, cost of cartage, cost of harvesting and labor cost, while the price of sugar is declining due to erosion of preferential markets (Lal 2008). Prasad (2008) also found that major causes for the declining trend in cane production in Fiji are: (i) lack of land tenure security, (ii) lack of credit availability to farmers and (iii) lack of extension services. The overall decline of infrastructure, falling mill efficiency and now the declining prices has resulted in the decline in sugarcane production (Island Business 2010).

3.2 Problems of Dalo, Cassava and Kava Producers

Major problems faced by dalo, cassava and kava producers in Fiji as pointed out by Nacoke (2007) are:

- Poor road conditions affect most farmers who live in areas far away from the main roads in rural areas. Poor road condition gives rise to the following problems: (i) limited access of farm produce to the market; (ii) delays delivery causing damage to the products and lowers the quality of the products; (iii) long cartage period on poor roads increases damage and thus the marketing costs.
- Where marketing agent collects farm products from villages farmers are affected adversely by his unorganized plans for uplifting the produce. The missed visits of marketing agents often result in (i) waste of perishable products harvested for supply on a particular day, and (ii) loss of weight of fresh produce due to waiting time.
- Lack of storage facilities result in theft, damage or waste of products at the collection centre;
- Lack of marketing information to farmers about the market situation and prevailing prices in major markets affects the whole agricultural system;
- Insufficient knowledge of farmers about the post-harvest management also affects the marketing process and the quality of the product;
- Lack of knowledge on quality and handling requirement for export products results in waste and losses.
• Lack of provision of collection centre/market yards in their neighborhood affects many farmers of remote areas as it results in high transport costs and the wastage of farm produce;
• Lack of transport facilities for interior farmers and riverside dwellers that need varied transport systems like boats and small utility vans.

3.3 Problems of Vegetable Growers
Major problems encountered by vegetable growers in Fiji are also listed below (Remudu 2006):
• Insecure land tenure (contributing to lack of improvements or investments in land for drainage, etc;
• Lack of institutional credit facilities;
• Lack of skills of scientific methods of vegetable production;
• Poor marketing facilities. There is price dictatorship by iterant merchants and inconsistent purchasing;
• Lack of storage and preservation facilities for vegetables and fruits causing gluts and shortages in supply and undue price fluctuations;
• Lack of processing facility and thus spoilages during glut periods;
• Lack of irrigation facilities (manual irrigation is time consuming and now costly due to rising labor cost);
• High costs of fertilizer and other agro-inputs required for vegetable production.

3.4 Problems of Cattle Famers
Livestock farming provides regular cash flow for many poor farmers. A lot of these livestock farming occurs in sugar growing areas where farmers are poorly resourced to rear animals. These farmers convert low value forages and crop residues into animal feed. In most cases, farmers use family labour to sustain these small-scale livestock farms, which supplement their family income. Unlike other tropical areas in the world, animal husbandry has only become established recently in the Pacific island countries. In Fiji there are very few large commercial scale farms and most animal husbandry is done at subsistence level. Even though in some areas a lot of
fodder resources and grassland exists in Fiji, animal husbandry is not so common, particularly on commercial basis for which reason Fiji is not self-sufficient in meat and milk production.

Field studies conducted by a number people reveal that livestock production programs are not progressing in Fiji due to various problems faced by cattle farmers (Aregheore et al. 2008; Bolasui 2008; Vorelevu & Bhati 2006; Aregheore et al. 2001). The major problems are:

- Lack of veterinary facilities in most farming regions (resulting in farmers not confident about rearing exotic breeds of cattle whose productivity could be much higher);
- Disease susceptibility of highly value exotic breeds;
- Artificial Insemination (A.I.) facilities for cross-breeding and genetic improvement of local cattle population are lacking in most farming areas;
- Inadequate livestock extension services for farmers;
- Lack of training and education for farmers (as a result there lack of modern methods of animal rearing and pasture management);
- Short-term and customary land tenure system under which many cattle farmers operate hinders farmers from long-term capital investment required in cattle farming.
- Lack of institutional credit facility for investment in cattle farming or pasture improvement due to lack of property rights on lands;
- Lack of property rights also result in weak or no incentive for the development of the pastureland (this has led to huge decline in productivity of most pastures in Fiji since the mid 1990s);
- Poor road condition and lack of transportation facilities due to which cost of marketing of livestock products is higher;
- High cost and irregular and inadequate supply of inputs (especially of concentrated livestock feeds and medicines).

3.5 Policy Implications of the Problems Identified

The above discussion highlights various problems of farmers in Fiji and provides the basis for more concerted agriculture development policies and support schemes. These issues provide the
basis for establishing information, training and infrastructure for the development of agriculture and agribusinesses in Fiji. Establishment of well-structured and efficiently managed agribusiness supply chains is needed. This is particularly important due to increasing urbanization of the population and thus the need to move more food from rural to urban areas to meet the increasing demand of primary agricultural products in urban areas. There are unreliable and inadequate agricultural marketing services in the country at the moment (McGregor, 1999). Under such a situation production and supply of perishable agricultural products such as meat, milk, vegetables and fruits are badly affected and so the country is dependent on imported food (see Table 4 for absorption of imported food commodities in Fiji).

Farmers generally do not respond to the increased urban demand if the price signals do not reach them and current marketing channels are not adequately linked to them. Since supplies of farmers in Fiji are not adequately and efficiently linked with the urban demands, the gap of excess demand is being filled by the food products imported from Australia, New Zealand and other countries. In the absence of robust domestic agri-supply chains, the wholesalers and retailers in Fiji find it much easier and reliable to import from faraway places rather than meeting their orders of farm products from the domestic producers. Supply chains from foreign suppliers are well management and properly linked with local wholesalers and retailers while those connecting local farmers are poor, inadequate and unreliable to meet the demanded quantity and quality on timely and sustainable basis. Hence, it is big challenge before the policy planners and development agencies to harness this opportunity of increased urban demand in Fiji by expanding and strengthening the local agro-food supply chains linking farmers and urban consumers within the country.

Agricultural production differs significantly from the manufacturing sector in one important respect: the market seldom resolves the demand-supply of commodities adequately to avoid oversupply and the subsequent undersupply within a short term period. The suppliers do not have the mechanisms to adjust or respond to the market conditions immediately to avoid wastages. Farmers often face the prospect of glut in the market when the season sets in since supply side information is often not available and even if it is there, it is often too late to make any
adjustments. Such commodity gluts in the market cause prices of agricultural commodities to spiral down causing significantly revenue loss to farmers.

Some reasons are forwarded here about why the domestic farm production in Fiji fails to respond to demand of food commodities. The key problem in Fiji is the lack of information about the demand side of the market, to which farmers could match their supply and storage and preservation activities. The government however, has recently launched a web based market watch publication which is meant to provide market information to the farmers (MPI 2010b & 2010c). But most of the farmers in Fiji are not computer literate and lack access to internet facilities.

4. Policies for Strengthening Production and Agribusiness Supply Chains

This process of transforming agricultural production and marketing will very much dependent on the agricultural policies that the government would use to change the social and economic context within which farm production and agribusiness takes place. Policies required in Fiji for developing the agricultural sector and agro-entrepreneurship are discussed in this section.

The concerns and problems pointed out by the farmers are in fact their unfulfilled needs. To boost agricultural production to meet local demand and for export to address trade imbalances, the well-planned government policy actions are needed. Some good policies are currently being facilitated but the actual outcomes are not showing yet (MPI 2010a, 2010b & 2010c). Such well-planned policies would help fulfil the much needed aspirations of the farmers and also resolve a number of their business constraints. A number of issues are listed below which need consideration.

4.1 Marketing Mechanisms and Networks for Farm Products

Vegetables, fruits, meat products and milk are highly perishable agricultural products. There must be an efficient and dependable market chain for these products linking farmers with consumers to induce consistent demand and supply system. There must be village level supply
mechanism for these products in rural areas and the marketing system should link farmers with the competitive market chain, which fetch the farmers the best price for their products. This crucially depends upon more effective development of transportation and storage system. For instance in the case of supply of vegetables, local storage and processing facilities would widen the supply side of the market, particularly when there exist many small suppliers of such perishable products.

4.2 Training of Farmers

Cattle farmers and growers of fruit and vegetables need upgradation of their skills of production and marketing to address the supply side production constraints. Such training programs could lead to substantial gain in enhancing the supply of these products and fulfil the supply-demand gaps that exist at the moment. The training and extension process is already underway at the Ministry of Primary Industries (MPI) to some extent but information is not flowing efficiently to the farmers. Trainings are imparted to the Ministry of Primary Industries personnel but not so much to farmers who are the real actors in the business of agriculture (see MPI 2010d).

4.3 Local Supplies of Inputs and Equipment

Many of these suggestions may entail new farming methods and thus may need special equipments or materials. Such equipments and materials need to be made available locally. For instance, disease control medicines for goat, sheep and cattle or improved seeds and animal breads, fertilizers and feed stock need to be made available in nearby towns and commercial centres where such activities are located. The MPI in Fiji is making a reasonable effort towards these goals but facilitation of the private sector involvement would help in this endeavour. In this way supply of the necessary equipment and materials would significantly enhance meat and milk supply.

4.4 Transport and Storage Facilities

Since most farms are small and widely dispersed throughout the countryside, a correspondingly widespread transportation network is required to channel supplies from the farms to the market centres in towns. Efficient transport mechanism to move farm products such as milk, cull cattle, vegetables, fruits, root crops to the markets and storage facilities. To provide favourable
incentives to farmers, transportation must be as inexpensive as possible with improved infrastructure and road conditions. Bulky and highly perishable commodities may also require special care during transportation from farm gates to the market.

Transportation and storage facilities may also be provided through private initiatives but with some government supervision.

4.5 Credit Facilities for Investors

Credit facilities for the agricultural sector have been low since early 1990s due to a number of reasons. First, the uncertainty about the land tenure since early 1990s was the main cause of this decline in loans to farmers. As a result of looming land tenure problems, investment confidence of the farmers also declined during this period. Secondly, the government development policies since early 1990s up until recently become inherently passive towards agriculture and more active towards tourism. The data given in Figure 1, shows very low levels of credits for agricultural development. However, there seems to be a significant increase in the agricultural loans recently as shown in the Figure 1 which is a sign of change in the government policy towards this sector of economy. Apart from the Fiji Development Bank, which is government owned entity, a lot of commercial bank activities have been encouraged by the government in this area recently. This is very encouraging for the smallholder farmers with low savings who were unable to borrow and expand their farm activities and introduce new technologies.

However, the increased supply of credit needs to be matched with demand for agricultural credit. Apart from access issues for the farmers, success also depends on reasonable cost of credit. Therefore, the rate of interest needs to be maintained at reasonable levels and also to provide enough time for the farmers to repay their loans. This measure is important if farmers are to succeed in competitive markets domestically and also globally.
4.6 Cooperative Group System for Smallholder Farmers

Some agricultural products are highly perishable and need special transportation facilities. Milk and meat products are the most important commodities that need such facilities even in the case of short duration of a few hours. Vegetables (particularly green leafy products) also need such facilities but the cooling process may be less intense. Because these products are bulky and highly perishable, their transport system needs to be fast and cost effective, which could make small scale production profitable. This is where local cooperative systems would become useful for farmers.

The constraints of farmers would at least be partially addressed if farmers have some control over the prices they get for their produce. The small scale producers are often in a weak and vulnerable position in the market place. Hence, farmers can join into some form of cooperatives to take joint action in an organized way in order to meet needs that many of them recognize but cannot meet by acting alone. This kind of voluntary group action by farmers in the form of cooperative is important for enhancing agricultural development within local communities, which can have wider national effects.
There are numerous examples of such systems globally where cooperatives are formed to take the responsibility of transporting and marketing farm products. The supply of farm inputs can also be organised in this way much more cheaply. However, the establishment of such cooperative systems need considerable government involvement.

4.7 Expansion of Area under Agriculture and Long-term Land Tenure

Problem of land tenure was mentioned by most farmers growing various agricultural commodities. On one hand the demand for food products is increasing while on the other hand, human resources engaged in the agriculture sector in Fiji seem at risk, particularly the migration of tenant farmers away from agriculture. Substantial fertile land area is lying unused in Fiji which should be fruitfully used towards agriculture production. Also marginal and waste land which is also not currently under any use may require development to be used as pastureland for livestock production. Such development may not be easy since the land tenure issues are not resolved yet and for such development long-term tenure is necessary to encourage investments by farmers. Therefore, to boost agricultural production in Fiji it is essential not only to increase agricultural productivity per unit area by adoption of new farm technology but also by expansion of total area under cultivation with long-term tenancy rights.
5 Conclusions

From the foregoing discussion it is felt that a more productive mode of agriculture and agribusiness is needed in Fiji. Having a more productive and price responsive agriculture would generate higher levels of rural income and help develop the rural economy with the scope of greater intensity of forward and backward linkages and thus generation of new economies. Increasing affluence of the rural sector would lead to higher rates of absorption of domestic food products and increase of income. In this paper some important agricultural development policies have been highlighted that indicate the introduction of more commercial practices in agriculture. Prospects for higher earnings of farmers due to better market networks and more efficient distribution system could lead more farming activities and higher output.

This paper has highlighted the need for increase in agricultural production to improve food security and reduction of dependence on imports. It has been argued that agro-entrepreneurship and agricultural transformation in Fiji is necessary to keep pace with global economic trends. It is also argued that the task of sustainable development in the rural sector requires sound economic approach with the aim of creating more agriculture based entrepreneurship and thus it is essential to identify major skill gaps and production constraints that need rectification before long term success can be assured. These developments need to be farmer centric for a definite success for which the seven-point agricultural development strategy outlined in the paper needs government’s attention. The new Demand Driven Approach (DDA) to farming practices and the initiative by the Ministry of Primary Industries (MPI) in Fiji are indications that policies are being re-oriented in this direction (see MPI 2010a and FTIB 2010). It is expected that a simultaneous change both in the skills of farmers and the availability of new technologies and allied inputs would effectively change the farm production methods and the management of agri-food supply chains.
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