

# The failure of agricultural policymaking in Fiji

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The agricultural sector in Fiji is seen in many quarters—including by the Reserve Bank of Fiji—as potentially a key driver of needed increases in export earnings and import substitution to reverse the continuing increase in the trade deficit. Despite the many pleas for better performance from the farming sector, it has performed poorly for a long period. Because Fiji is well endowed with agricultural land and rural workers, its agriculture sector should be a key part of the Fijian economy in terms of providing subsistence in rural areas and helping ensure food security for the society as a whole, as well as contributing to export earnings and foreign exchange.

Why is the agricultural sector not performing better? Why is the sector finding it difficult to increase exports and to produce commodities that will substitute for the large volume of imported agricultural products consumed domestically, including by tourists?

Externally, the quarantine restrictions of countries that are potential export markets for Fiji's agricultural output are a constraint on exports. Considerable effort—scientific and diplomatic—is needed to break down these barriers. So far, Fiji has overcome these barriers to only a very limited extent. As well as sugar, which is not discussed here, dalo,

kava, ginger and cassava have been the main crops exported; although horticultural products (particularly pawpaw and vegetables, including chillies) are the fastest growing component of agricultural exports. While dalo production and exports appear to be increasing, production and exports of kava and ginger have declined. In the case of kava, the decline is due to bans on imports of kava by the major industrial-country markets. In the case of ginger, production is declining because the main producers are leaving the industry and attempts to have other farmers take on ginger production have not been very successful. Pawpaw production and exports have responded well to the relaxation of quarantine restrictions.

On the domestic front, the absence of secure individualised tenure to land and the resulting difficulty of accessing credit without such secure collateral are well-known obstacles to the expansion of agriculture. Political instability and law and order problems, particularly on-farm theft, also pose significant constraints to investment in agriculture. The running down of agricultural research and extension over many years has also had adverse impacts on the introduction of new and improved crop and livestock products and farming systems.

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The theft of crop and animal products has become a pervasive problem for commercial farming, leading to a loss of interest in investment in farming. There is a noticeable shift to cassava and dalo and away from higher-valued crops such as vegetables and ginger—even on large farms. This is very likely in part a result of the high incidence of theft, as cassava and taro are more difficult to steal—though they are still subject to theft. Because farm labour is becoming more difficult to hire and more costly, the shift in farming activity is also likely to reflect a move away from labour-intensive activities such as the growing of ginger and vegetables and towards the less labour-intensive activities; timeliness of operations is less important in the case of dalo and cassava.

Another problem leading to the lack of development of a vigorous commercial farming sector in Fiji is the lack of interest in building up and passing on farm assets to the next generation. Commercial farming has been undertaken primarily by the Chinese and Indian communities. The most likely cause of the lack of interest in building up and passing on farm assets is insecurity over tenure to the farm, as the Chinese and Indian farmers have mainly held leasehold title to native land. Therefore, the families have invested in their children's education. With the limited opportunities for skilled workers in Fiji, this has meant that the children leave Fiji and the parents follow.

While acknowledging these many constraints, we wish to concentrate in this article on the absence of good agricultural policies over many years and the adverse impacts that poor policies and badly designed projects have had on the agricultural sector, including on research and extension in the Department of Agriculture (and its various manifestations). The poor policies and projects that have been implemented by various governments appear to have

their roots in a poor understanding of the economic, cultural and social environment in which they are to be implemented.

### **The economic and cultural environment of agriculture**

Leaving aside the sugar-growing sector, the agricultural sector in Fiji can be categorised broadly as comprising a commercial sector and what we call the 'village' sector. We define the commercial sector as comprising large corporate farming enterprises that employ professional managers and those owner-operator farming enterprises whose major activity is not production for subsistence. There are only a handful of corporate farming enterprises, primarily in the poultry industry. Larger-scale, commercial farmers have been operating in dairying, beef cattle and pig-raising and the growing of ginger, fresh vegetables and dalo.

Most Fijian villagers have semi-subsistence livelihoods, producing a surplus for sale to meet education and health expenses as well as purchases of food and other expenses such as social and cultural obligations and entertainment. There has been a large focus by successive governments and by the Agriculture Department on improving agricultural productivity in this sector and on increasing its commercialisation. These endeavours have, however, had very limited success.

One of the main difficulties experienced by private middlemen or traders or processors in dealings with the village sector—as well as by government bodies set up to carry out similar functions (such as Fiji AgroMarketing and Food Processors [Fiji] Limited)—is in ensuring the continuity and the quality of supplies from village farmers. This difficulty appears to stem largely from the farmers' lack of respect for the contracts

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that they make with the traders. Firms that contract 'out-growers' experience similar difficulties. Contracts are agreed with farmers for the delivery of a specified volume of production—perhaps after supplying them with inputs. However, the contractors often find that the farmers sell the produce to someone else offering a higher price. This lack of respect for contracts makes it very difficult for middlemen or processors to carry on a viable business. The fact that the village farmers usually have no commercial assets that they stand to lose as the result of not honouring a contract means that there is little possibility of sanction through the courts.

Another difficulty facing the viability of indigenous farming businesses, especially businesses established within the village, is the prevalence of social and cultural obligations (*kerekere*). Attempts to overcome this difficulty through the formation of joint-management groups within the village do not appear to have been successful, as they have proven prone to governance problems. There is still belief in some quarters in the viability of village cooperatives, but experience is such as to not inspire much confidence in this form of enterprise. Experience of management groups among Maori tribes in New Zealand has seen greater success, where the need to ensure good governance and efficient management structures seems to have been realised. Until this point is reached in Fiji, joint ventures between villagers and non-indigenous entrepreneurs might offer a better means of 'quarantining' village businesses from onerous cultural and social obligations. Even this model, however, might not suit agricultural enterprises because outputs are hard to monitor, which could lead to disputes.

The absence of formal, individualised title to native land in the form of long-term leasehold is not necessarily a constraint on

the commercialisation of agriculture within the village sector—although it could lead to less than the optimal level of development. Traditional authority structures within the village are able to provide individuals with sufficient security to the use of land to encourage investment and individual effort, allowing farming to take place on a commercial scale. This is, however, seldom done. Still, the absence of formal title to the land, such as a long-term lease backed by the government, means that the land cannot be used as collateral for loans from commercial banks. Therefore, the amount of credit available to the Fiji farming sector is much less than the optimal level.

Because of the village sector's difficulty of access to credit, governments have attempted to overcome this problem by extending loans, primarily through the Fiji Development Bank—a government instrumentality. There has, however, been a high failure rate with this lending activity—in terms of the lack of success of the projects and poor repayment of the loans extended because of an apparent 'cultural unwillingness to repay debts'. A major factor leading to the poor performance with respect to the projects themselves and the loan repayment is that because borrowers have not provided security for the loan, they have little to lose by not trying to ensure the success of the project or not repaying the loan. It would be a different matter if governments did not continue to provide 'hand-outs' in the form of security-free loans. With governments continuing to behave in this way, villagers do not have to worry about loss of 'reputation'—something that they would otherwise have to be concerned about if they were interested in securing further loans.

It should not be expected that within the village sector there will be the same response to seemingly profitable opportunities as in the much more market-oriented part of the economy. What has been described

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as 'subsistence affluence' appears to be pervasive. That is, the communities can live comfortably by devoting only a few hours a week to food production and do not see it as necessary to respond to income-generating opportunities, except to pay for essential services such as education and health. What underlies this behaviour is not well understood; but it certainly should not be ignored and should not be expected to change quickly or in response to agricultural policies and schemes that work well under completely different circumstances.

Moreover, 'subsistence affluence' needs to be protected, as it has to be the foundation for an even higher standard of living in rural areas. The evidence, however, points to life becoming more difficult for some rural communities as food resources become scarcer with declining soil fertility, soil erosion and the encroachment of pests and diseases. It is very important, therefore, for a focus on protecting and enhancing the subsistence basis of the economy through measures such as the protection of the environment, the replanting of food trees and improving village farming systems.

As described in detail below, with respect to successive governments' policies for the agricultural sector, the expectation of continued government hand-outs in the farming sector has been encouraged by policies that lead to farmer dependency on government. As with all forms of economic dependency on government, individualism and enterprise are sapped and the dependency is very difficult to reverse.

A form of dependency that has been encouraged by government policies is that farmers expect the government to provide 'assured' or guaranteed markets. Governments around the world have attempted to provide guaranteed markets and prices for agricultural activities—for example, through price stabilisation schemes

or marketing boards. These have, however, proven ineffective and costly and have now mostly disappeared. In most countries, the private sector is now responsible for the marketing and distribution functions for agricultural products.

### A short history of agricultural policy in Fiji

External commercial interest in the natural resources of the Fiji Islands began with trade in sandalwood and *bêche-de-mer*. By the 1860s, Fiji was attracting European settlers intent on establishing cotton plantations to capitalise on the boom in cotton prices due to the American civil war. The renowned botanist Bathold Seeman, from London's Kew Gardens, surveyed the wide Rewa River flats for their potential in supplying cotton to the looms of Manchester. One of the first books about the Fiji Islands was entitled *Fijian Cotton Culture, and Planters' Guide to the Islands* (1870) by W.C. Pechey.

The cotton industry was short-lived, however, as it could not compete with the producers in the American south once the civil war ended. Attempts by the Department of Agriculture in the mid 1930s to establish an export cotton industry were met with scepticism by the private sector because of problems in getting labour to cultivate, pick and sort the cotton—even though a hybrid cotton variety had been specially bred for Fijian conditions at the cotton experiment station in Sigatoka.

Fiji became a British colony in 1874. Under the colonial administration, Fijians were taxed in produce, not cash—indicative of a capable agricultural base. The pressure for the colony to pay its own way led to the establishment of a large-scale sugar industry with investment from the Colonial Sugar Refining Company. Indian labourers were brought to Fiji from 1879 under the

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indenture system and were encouraged to become permanent settlers after their five-year contracts had expired.

Apart from sugar, the other mainstay of Fiji's economy was copra. Islanders in Lau were trading coconut oil in the mid nineteenth century, while large-scale plantings began in the 1870s in Caukaudrove Province, including in Taveuni. In the beginning, these planters on freehold land received high prices for their product and had access to cheap labour—initially, workers from other Pacific islands and India, who were

later replaced by Fijian workers. During the 1940s, there was a shift of emphasis in the production of copra towards Fijian village producers.

Chinese farmers grew bananas along the banks of the Sigatoka River in the early 1900s. Some of these Chinese growers were established produce merchants from Melbourne and Sydney, and Fijian bananas were exported to Australia until tariffs were increased in 1911. Fijian village producers undertook banana production in a big way and, by the 1950s, were producing

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**Box 1 Fijian banana production: 'village' fruit versus 'plantation' fruit**


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By 1961, Fiji's exports of bananas totalled more than 200,000 cases, with the bulk coming from village growers and sold through 38 licensed shippers (37 Fijian organisations, including cooperatives, and one Indian businessman).

In 1964–65, the government, through the Land Development Authority, established a farming settlement in Lomaivuna to grow bananas under the management of the Fiji Development Company. The scheme began with the settlement of 100 farmers, each provided with a house, five acres of cleared bush and four acres planted with bananas. Later, another 400 acres of bananas were established on a cooperative basis in Waidina.

The Department of Agriculture encouraged the development of plantation-type agriculture with banana trees planted in 'evenly spaced rows' in order to improve quality. To reinforce the drive for quality, the Banana Marketing Board set different prices for 'village' fruit and 'plantation' fruit. Plantation-grade fruit was paid an extra 10 per cent and qualified if the bananas came from 'organised plantations where high standards, of planting, cultivation, fertilizing and spraying were carried out regularly and were so certified by the Director of Agriculture'.

The reality was, however, that very few growers applied fertiliser or followed accepted disease-control measures. By 1970, there was only one farm that qualified for plantation status and the bonus payment for its fruit. The Department of Agriculture then began a pilot Intensive Banana Scheme, with selected growers, to produce bananas on an intensively managed basis, using clean planting material from the department's research station and supervised by two extension officers specialising in banana production under the guidance of a banana research officer.

Of the 52 acres in the Intensive Banana Scheme, by 1972, only 12 acres were well maintained after Cyclone Bebe. By 1973, it was recognised that the future of bananas as an export crop was bleak and the department gave up its extension and research efforts.

Today, nearly all of Fiji's banana output—estimated to be about 4,700 tonnes in 2002 and worth F\$5 million—is for domestic consumption and comes from village growers.

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**Source:** Department of Agriculture, various years. *Annual Report*, Department of Agriculture, Ministry of Agriculture, Fisheries and Forests, Suva.

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more than 200,000 cases for export to New Zealand. There were unsuccessful attempts by the colonial administration and the Fijian government to 'commercialise' banana production (Box 1).

For the first two decades after independence, the government's agricultural policies gave priority to replacing food imports (import substitution) and promoting new export products. The import substitution focus was mainly on broad-acre crops such as rice and feed grains and livestock products (beef, poultry and dairy products). Hopes for new export crops were placed on commodities such as coffee, cocoa, ginger, cashew nuts and pawpaw.

The government, however, was more than a promoter of these import substitution and export activities. Besides identifying the activities, it was also an active participant, assisting farmers through infrastructure and farm inputs, as well as becoming engaged in processing and in marketing the produce—locally and overseas (McGregor and Gonemaituba 2002).

In 1989, there was a policy shift by the government towards greater reliance on the private sector and export markets and away from the protection of industries from imports. Some import controls were removed and some tariffs reduced. The private sector—farmers, processors, traders and exporters—was to determine what commodities were produced and what markets were developed. McGregor and Gonemaituba (2002) reported that the private sector responded positively to the challenge. The government encouraged horticultural exports and exports of traditional crops (dalo, duruka and kava) as well as ginger to replace the declining sugar exports.

In an about face, however, the Commodity Development Framework (CDF) was introduced in the 1998 budget 'to jump-start the agricultural sector'. This

program was supposedly based on a 1996 Asian Development Bank (ADB) report on Fiji's agricultural sector. Four years later, after government expenditure totalling in the tens of million of dollars, the CDF scheme was dropped (Box 2). In its place, the government introduced the Farm Assistance Scheme, an affirmative-action policy, largely for indigenous Fijian villages, providing free farm inputs and the reintroduction of government marketing in the form of Fiji AgroMarketing Limited, established under the *Agricultural Marketing Act* of 2004.

Presently, direct forms of assistance are being provided to farmers through schemes such as the Beef Cattle Programme and the Dairy Industry Support Programme. The Beef Cattle Programme subsidises pasture improvement through handing out seeds and other planting materials; it also assists with stockyard construction and fencing, as well as subsidies for cattle breeding through the provision of bulls and artificial insemination. The Dairy Industry Support Programme gives assistance in the form of bull servicing, artificial insemination, grass and legume seeds for pasture improvement, veterinary services and construction of milking and calf sheds. There are also capital projects to support the expansion of sheep and goat meat production.

The provision of direct subsidies to try to encourage farming goes back a long way. Before independence in 1970, subsidies were paid for coconut planting and rehabilitation, for cocoa planting, for the importation of livestock for breeding and for the purchase of fertilisers, weedicides, pesticides and barbed wire. There has, however, also long been doubt about the effectiveness of such subsidies. In the Agriculture Department's 1969 *Annual Report*, it was questioned whether the subsidies were having the intended effect of improving farming practices. The report noted the department's disappointment about the lack of interest

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## Box 2 The Commodity Development Framework, 1997–2000

It was said that the Commodity Development Framework (CDF) was based on a strategy of export-based, private sector-led growth, with government playing only a facilitating role. Essentially, however, the scheme involved the government ‘picking winners’ by selecting particular commodities that were identified as having market potential and trying to make them ‘winners’ by providing grants for various activities along the supply chain. Much was made of the idea of forming public–private partnerships to promote agricultural development. It was a strategy intended ‘to remove all bottlenecks, once and for all’, so that farmers and fishermen could maximise their production and ‘obtain the best return from their investments’.

The funding initially requested for the CDF from the national budget was \$97 million. The framework was promoted as being able to increase national output by \$1.71 billion over four years. The funding request was later reduced to \$69 million. It was reduced even further, as the government had to redirect funds to urgent issues. By 2000, the scheme was quietly forgotten. The government had to write off its investments in some of the public–private partnerships established, such as its F\$500,000 equity in Wonder Gardens.

The most important issue that the planners forgot was the indiscipline that comes with using ‘other people’s money’.

in maintaining coconut plantings once the subsidies had been paid.

Governments have also tried, without success, various farming schemes to develop particular products for domestic and export markets. For example, there have been schemes to promote beef cattle, rice, cocoa, pineapple and banana farming. A review of the history of various agricultural schemes (Box 3) yields many lessons for policymakers.

Besides dalo and cassava, rice consumption is the main source of calories in Fiji. Most rice demand is met through imports but there have been persistent calls for domestic rice production to replace imports. Despite millions of dollars spent by governments on developing infrastructure for irrigated rice and promoting rice-farming schemes—as well as a period of tariff protection—rice production has not done well. All government-initiated, irrigated rice schemes have failed because these activities are economically inefficient in Fiji.<sup>1</sup> Indeed,

rain-fed rice growing for personal consumption has performed much better than the irrigated farming schemes. With the recent high global prices for rice, there have been increased dryland rice plantings and the Agriculture Department has provided some support to this supply response through assistance to rice growers in the form of machinery and farm inputs. The outcome has been a sharp increase in rice output.

The spread of the African tulip tree to the point where it has become a major weed infestation threatening the livelihoods of the village sector and commercial farming enterprises illustrates the failure of governments to recognise or develop the will to address a major problem, while continuing to put funds into various unsustainable schemes. The African tulip tree is affecting substantial areas of most of the country (Box 4). The tree has no predator in the Fijian environment to prevent its spread, which is posing a severe threat to much of the arable land and particularly that farmed in the Fijian villages. The threat

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Box 3 The pattern of failure of agricultural schemes in Fiji

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A review of the Agriculture Department's annual reports shows that the various agricultural schemes that governments have supported in Fiji follow a depressingly similar pattern. First, there is great enthusiasm for assistance to be given to the industry. The enthusiasm has usually arisen from a spike in the world price for a commodity that is being imported or for which domestic consumption is increasing, and therefore there is a push for import substitution—for example for rice. Otherwise, the pressure comes from the identification of an overseas market by a local or external consultancy team or a desire to copy successful agricultural developments overseas—for example, cocoa. Sometimes traditional crops that have done well as semi-subsistence crops or new crops with a limited number of small growers have been earmarked for commercialisation. Schemes have never been triggered by the results of research identifying a better quality or higher-yielding variety or an improved farming system.

A number of untested assumptions are made and public funding is justified on the basis of good cost-benefit ratios. The initiation of the scheme might receive considerable support from a donor—for example, support for cocoa from the European Union. Farmers are attracted to the scheme through the government making land available and providing infrastructure such as roads and irrigation—for example, for bananas and rice. Other subsidies are provided in the form of assistance with land preparation and harvesting, planting material and fertilisers. In the case of the banana scheme, land was provided to farmers and half the land was planted for them.

In the initial years of the schemes, rapid increases in output are achieved. Aside from the assistance provided, the increased output is due to the fact that the land provided is often virgin land free of pests and diseases. Within a few years, however, extension officers give warnings about land degradation, rising costs and plant-protection problems. Output begins to decline as the subsidies are withdrawn, or problems develop with the infrastructure (the irrigation channels or the drains are too small), the soil fertility declines and pests and diseases begin to affect production. The government is unable to assist with research into soil fertility, weed control and control of pathogens. As well, the better farmers who have been able to make a good income from their participation in the scheme leave. In order to reverse the declining output, the government might intervene by expanding grower area and getting more subsistence farmers into commercialisation.

The declining productivity might cause the farmers to seek alternative crops or revert to semi-subsistence. Bank loans become difficult to obtain as bad loans increase, and exporters and processors begin to shy away from extending credit because farmers are not honouring contracts.

The commodity might undergo a later rehabilitation phase, perhaps due to another spike in world prices or fresh enthusiasm by a new minister or head of department with little institutional memory of what has happened before. Again, government and donor assistance is provided in the form of various kinds of subsidies and by 'guaranteeing' markets, rather than undertaking research to reduce the biological risks. Rehabilitation is, however, usually difficult as pests and diseases are by now firmly established and the more progressive farmers have exited the industry or are no longer young and willing to work hard.

Finally, the government gives up and closes the project. As a sign of resignation, the commodity might be no longer mentioned in the department's annual reports.

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**Source:** Department of Agriculture, various years. *Annual Report*, Department of Agriculture, Ministry of Agriculture, Fisheries and Forests, Suva.

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## Box 4 The spread of the African tulip tree in Fiji

The African tulip tree (*Spathodea campanulata*) was introduced widely throughout the tropics as an ornamental tree. In the Pacific islands, it has invaded agricultural land, forest plantations and natural forests. It was introduced in Fiji in the 1930s and has been recognised as a problem for about 20 years. It has, however, spread very quickly in the past 10 years. Secondary or regrowth forests previously cleared for agriculture make up more than 20 per cent of the total forest cover. The African tulip is the predominant tree in these secondary forests. Under the shifting cultivation system practised in Fiji, it has quickly invaded fallow areas. Farmers estimate that the time taken to clear one infested hectare manually is about 15 months. Because of difficulties controlling African tulip infestations, farmers tend to leave these areas and clear natural forest. This is resulting in the weed's incursion further and further into natural forests.

Some preliminary research has been undertaken by the department over the years in the form of herbicide treatments and investigation of biological control. This research has not, however, been sustained. It is likely that an integrated weed management program will be needed for control, which could involve a combination of biological control, chemical control, crop rotation and depletion of the buried seed banks. Identification of the best form of management will require sustained research of various forms.

Of significant concern, however, is whether the farming community will undertake the necessary management system, especially in the villages where such intensive management of weeds is uncommon. Therefore, the threats to the sustainability of village subsistence and to biodiversity are significant.

**Source:** Most of this information was drawn from Department of Agriculture, 2001. *Integrated Control of African Tulip Tree* (*Spathodea campanulata*), 23 January 2001, Research Division, Department of Agriculture, Ministry of Agriculture, Fisheries and Forests, Suva.

in the villages is heightened by the fact that the African tulip spreads by airborne seeds (over a wide area), roots and cuttings and quickly establishes under the type of minimal cultivation carried out in village gardens. It is apparent in some villages that gardens are being forced further and further away from the village, making food production more onerous. Unfortunately, the wood of the African tulip is extremely difficult to burn and moreover has no commercial value. Once the trees are established, clearing costs run into thousands of dollars a hectare. The spread of the weed is also obviously a severe threat to Fiji's biodiversity.

The Agriculture Department was warned about the spread of this weed about 20 years ago but little research has been done to find predators that will at least keep it under

control and it has spread quickly in recent years. Without early control, substantially more areas of arable land will be recoverable only at great cost. As the African tulip is also growing in other Pacific countries, consideration should be given to researching its control on a multi-country basis.

Governments have attempted to provide some form of government marketing function in Fiji for more than 30 years: in the 1960s, the department was purchasing wet cocoa beans for its fermentation plant at Naduruloulou Research Station; in 1971, the National Marketing Authority was established and was later corporatised as the National Trading Corporation (NATCO); and most recently, it took the shape of Fiji AgroMarketing Limited (established in 2004)—always with much the same costly outcome. The most

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bizarre attempt at government agricultural trading was the Fiji Military Forces Auxiliary Unit, established after the 1987 coup, which involved military personnel in Agriculture Department vehicles touring the countryside as purchasing agents, offering prices above those offered by the private traders. Because of their inexperience as traders, however, and the resulting difficulties in establishing domestic and overseas markets, the result was a failure.

The continuation of this kind of government intervention in markets has stemmed from a widespread belief among farmers and politicians that private sector traders are somehow cheating the farmers in the prices offered at the farm gate. While it is true that the prices paid for the unprocessed products are usually a small percentage of the eventual retail price, allowance has to be made for the costs borne at the various stages of the marketing chain (collection, transport, storage, added value, risks of loss, and so on). It is generally true that when there is competition among middlemen in the marketing chain, they do not receive monopoly profits. Therefore, it should be the government's main responsibility to ensure that there is effective competition among traders and processors, rather than competing against them using subsidised inputs and effectively 'crowding out' the private sector. It is not valid for the government to claim that the private traders are too few and/or are under-resourced when it is restricting their ability to function effectively by competing against them.<sup>2</sup>

Another of the assumptions behind the implementation of these government marketing bodies was that they would 'establish' markets where none were available and then hand them over to the private sector. This premise implies that there is some form of 'market failure' or 'market externality' that is preventing private traders from operating. No case

has been made for such market failures, however, and it is doubtful that there would be one.

Instead of operating to 'establish' new markets, the state marketing agencies competed directly with private traders by purchasing products from farmers who were already supplying the private traders, by offering a higher price than the private traders. The government traders then sold to the same importers overseas at lower prices than the private traders. The result was 'crowding out' of the private traders, losses incurred by the government marketing authority and lower export earnings than would otherwise have been the case. Fiji AgroMarketing Limited is continuing to operate in this way, presenting considerable difficulties for the many private traders exporting produce such as dalo.

In order for a healthy, competitive agricultural sector to develop, farmers must be educated to understand that the best way to ensure markets and earn the highest prices is to honour contracts with traders and processors and ensure continuity of supply at the best quality. Traders and processors cannot establish and maintain markets if they cannot honour their contracts with the wholesalers and retailers. Maintaining a market is a two-way street between the farmers and the traders/processors.

### Overcoming the 'hand-out' mind-set

The Tutu Rural Training Centre (TRTC) trains young village men to establish farming enterprises and young village women to set up small-scale home enterprises (Box 5). A key to the success of this training program, which seeks to instil economic responsibility in these young people, is the understanding reached by the village communities involved that they must provide the young people with security (particularly to land) for

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their activities, so that they will be willing to invest their effort and savings in their enterprises.

The Agriculture Department has been assisting with funding of the TRTC since 1973, but with budgetary cutbacks in recent years, the level of support has fallen. Given that the centre is one of the very few activities being undertaken to change the hand-out mentality and overcome the cultural obstacles to the establishment of indigenous farming businesses, the reduction in government funding is unfortunate. It is understood,

however, that the Agriculture Department realises the high value of the work that the TRTC is doing and has decided to promote it as a centre of excellence and to replicate its activities in other areas. One such area is Prison Services, where it is planned to educate prisoners in the principles of the young farmers' and young women's courses so that, when released, prisoners can return to their villages and become productive members of the community.

Other non-governmental organisations that have recognised that village communities have become overly dependent

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### Box 5 Tutu Rural Training Centre, Taveuni

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The Tutu Rural Training Centre (TRTC) was established in Taveuni in 1969 by the Society of Mary, the trustee and owner of the land on which it is based. The aim of the centre is to train young men and women to develop individual enterprises within their home villages. The focus of the training has been Cakaudrove Province; however, it is being expanded to Bua and Macuata Provinces.

Young men enrol in young farmers' courses for periods up to four years. Young women enrol in six-month courses. To be enrolled in the course, the young men must demonstrate their serious intent by planting 1,000 yagona plants in their village. As well, the village and the students' parents must agree to set aside an area on which the young men can establish their farming enterprise. During their course, the young men move back and forth between their farming enterprise in the village and their allocated block in TRTC. In this way, TRTC can see what obstacles the young men might be facing in attempting to implement what they have learnt at TRTC. Income earned from the allocated TRTC blocks is expected to finance their participation in the course and provide an income for the young farmers from which they will build savings for the construction of a home and investment in their village farming enterprise. The average annual income earned by the graduates from the young farmers' course is said to be F\$15–25,000.

At the completion of their six-month course (which is held every second year), the young women are expected to have earned sufficient income to purchase a sewing machine or cooking utensils to be used in their home-based business. Up to 50 young men and 30 young women are enrolled in the courses. As well as the young farmers' and young women's courses, TRTC also runs married couples' courses, parents' courses, village courses and leadership courses.

It is claimed that the attrition rates from the courses are very low, with 0–15 per cent attrition of young men during the four-year course. About 98 per cent of graduates from the young farmers' course are said to return to their village and earn significant livelihoods through farming. They are also expected to act as role models and continue mentoring other young men in their village.

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**Source:** With acknowledgment to Dr Andrew McGregor and the Tutu Rural Training Centre for this information.

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on external assistance and are working towards changing this mind-set are Partners in Community Development Fiji (PCDF) and the Ecumenical Centre for Research, Education and Advocacy (ECREA). These organisations are doing this work through facilitating discussions within villages to help the communities find their own solutions to their needs. Poor village leadership, including disputes over titles, and insecurity of access to land within the village for individuals to establish enterprises are said to be the two main problems identified. Communities are being encouraged to turn to government only for the provision of infrastructure (particularly transport and communication) and agricultural research and extension.

### **The need for better policy analysis**

One conclusion that is clear from the various government schemes in the agricultural sector over the years is that once the government assistance is withdrawn, farmer interest soon wanes. What are the reasons for this and the lessons to be learned? It could be that without the subsidy, the activity is no longer the best income-earning opportunity for farmers, so they turn to other activities. Or it could be that the kind of work involved is not attractive—for example, when the harvesters provided in the rice schemes were in need of repair, the farmers did not wish to harvest the rice by hand. Or it could be that once the project discipline and management advice are withdrawn, the farmers are unable to operate the enterprise effectively. The lessons from these experiences should provide a caution for the future implementation of agricultural policies.

Other conclusions can be drawn from the review of the various agricultural policies and schemes adopted by governments

over the years: first, most are based on a very poor appreciation of what can be expected from the farming community that they are intended to serve. Much better economic analysis of the schemes is needed. Second, the primary motivation for the schemes is usually not an outcome of research such as higher-yielding or better quality varieties or improved farming systems. Rather, the driving force has mainly been a sharp increase in world prices or the identification of a prospective market. These might be helpful factors in developing an industry; however, it has to be remembered that sharply higher prices are usually temporary and that other countries will be responding to the higher prices and prospective markets. Third, Agriculture Department research has found it difficult for one reason or another to support the schemes through combating the pests and diseases that have developed as production has intensified.

As well, it has to be stressed that the law and order situation in Fiji is now taking a heavy toll on the agricultural sector. Theft of agricultural produce—crops and livestock—from the field is reducing the incentive to invest in farming in many localities and, indeed, is changing the structure of agricultural production towards producing commodities that are less easy to steal. It appears that animal production has been falling significantly due to theft. Crop production has been changing from higher-valued fruit and vegetable commodities to lower-valued and harder-to-steal commodities such as cassava and dalo—though even these are not immune to theft.

The communities of Chinese farmers in Fiji, who have accounted for most of the larger commercial enterprises, have suffered seriously from loss of life and property through criminal activity. In part for this reason, the number of Chinese farmers has declined significantly in recent years and those that remain are not farming as

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intensively as before. Rather than living on the farm to protect their crops, they are living in town because of the threat to personal security. It is reported that, in some areas, 30 per cent or more reduction in output has to be allowed for theft when doing farm budgets. Thus, the Agriculture Department and the government have to take the impact of poor law and order into account in evaluating the prospects for particular agricultural policies and schemes and the agricultural sector's capacity to contribute to the economy.

### Realistic expectations are critical

The village sector—which has been the focus of many policies and schemes—does not respond in the same way to policies and schemes that work well in other cultural environments. Whether this behaviour is due to 'subsistence affluence' and whatever underlies that kind of behaviour, or whether it is due to the lack of security for individuals to develop farming enterprises within the village, these are facts of life that have meant that the best-intentioned policies have not worked. There are also the troublesome issues of the lack of respect for contracts with traders and processors and the widespread theft of farm output that bedevil attempts to encourage farm enterprises.

The government policies and projects adopted over the years have promoted a dependency culture among the farming community. Therefore, there is a need for much more realistic expectations about farmer responses to agricultural policies, especially from within the village sector. There is also, however, a need for the government to reverse the mind-set that has developed in the farming community to expect hand-outs from the government whenever a problem arises. The government's primary role should be to provide an effective physical

and regulatory infrastructure within which the farming sector can develop—that is, to provide transport infrastructure that enables farmers and traders to bring goods to market and farmers to purchase inputs; power and water services; regulations that ensure effective competition among traders and processors and for the provision of communications; research, extension and market information that allows the farming sector to increase productivity and incomes; and law and order.

### Research directions

While there is an important place for private agricultural research in the development of private sector activities, certain forms of public agricultural research are essential. A reasonable argument can be made that plant and animal introduction, plant and animal breeding, plant and animal nutrition, agricultural engineering and farming systems research could be undertaken by the private sector, as these forms of adaptive research are in their interest. Public research on measures to ensure plant and animal protection against pests and diseases is, however, critical for the protection of Fiji's plant and animal resources. Soil conservation and other research on environmental issues are also forms of 'public good' research. Basic research that leads to findings that should be available to all without restriction is also a form of research that should be undertaken by the government—otherwise it will not be undertaken or will be undertaken at a socially suboptimal level. In Fijian agriculture, however, where the industry structure is in the form of many small farm enterprises, there is also a case for the government to undertake adaptive research on behalf of farmers.

Research in the Agriculture Department was allowed to fall into a very run-down



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state, with very few experienced researchers employed and very limited funds available for research. The few researchers available have been largely servicing the provision of hand-outs for farmers such as multiplying seeds and seedlings. Buildings and equipment on research stations are in poor repair. There was no increase in the operating budget for research for the past eight years; moreover, funds that were allocated for capital projects were transferred to other projects or schemes within the department. Most of the vehicles held by the Research Division were purchased by donor funds many years ago and are now old, in poor condition and are very costly to keep in running order. The poor state of agricultural research in the department is of great concern to the present management.

A perusal of the department's annual reports shows that in the 1960s, 1970s and 1980s there was a considerable amount of good-quality agricultural research being undertaken by the staff of the department. Evidence of the volume and quality of the research also shows up in issues of the *Fiji Agricultural Journal*, which was published by the department. Publication of the journal became irregular, however, and eventually ceased in the 1990s—in parallel with the decline in agricultural research.

The running down of research appears to have several causes. First, as a result of the 1987 coups, most of the senior agricultural scientists left the country. Therefore, the amount and quality of the research undertaken have suffered, as well as the mentoring of younger researchers. Second, there is the decline in the capital funding of the Research Division,<sup>3</sup> which has had obvious implications for the state of repair of the buildings and equipment on research stations, as well as for funds to undertake research trials (fuel, seeds, research assistance, and so on). The deteriorating research resources have clearly had an adverse

impact on researchers' willingness to continue in their positions. Third, within the department, funds have been directed away from basic research and extension functions towards the funding of hand-outs to farmers. Fourth, the salaries of highly trained researchers have not been competitive with opportunities available overseas.

Throughout the 1980s and early 1990s, the then Ministry of Primary Industries (MPI) had an association with the International Service for National Agricultural Research (ISNAR) in the Netherlands, with ISNAR giving the MPI assistance in research planning. After a review of the ministry's research division in 1982, ISNAR, jointly with a task force from MPI, prepared an agricultural research plan for Fiji (ISNAR and MPI 1985). This was followed in 1991 by a review of progress in agricultural research in the ministry (ISNAR 1991).

The 1991 review noted the very damaging impact of the 1987 coups on agricultural research, because of the emigration of most of the experienced research staff. Other problems noted included the fact that the share of operating costs in the research budget had increased only from 12 per cent in 1984 to 17 per cent in 1989—well short of the 30 per cent recommended by the 1985 report. With such a small allocation for operating costs, it was difficult to carry out a research program. These and other problems identified are reflected in the recommendations made in the 1991 review

- rebuild the professional capacity of the research staff (primarily through external postgraduate training and overseas experience)
- adopt a rigorous procedure for setting research priorities; because of the small research resource base, it is important to concentrate on only the most important areas; involve the

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economic and planning section in the setting of research priorities to build in the expected economic impacts of the research

- consider a substantial reduction in the number of active research stations (keeping possibly only Koronivia and three others) and consolidate research on the reduced number of stations with a focus on the main research priorities; use the remaining research stations for other activities for the time being
- undertake joint on-farm trials to enhance the relationship between research and extension
- establish and maintain strong external linkages to make full use of external knowledge and materials
- do not employ researchers in non-research functions such as seed multiplication and laboratory services for health and forensic analysis (which appear to be taking up research staff time equivalent to three to four researchers)
- to enhance the systems perspective of the research program, form interdisciplinary teams focusing on production systems—for example, crop and livestock and inter-cropping farming systems—rather than the commodity-based approach.

Unfortunately, for the most part, the problems identified in the 1991 ISNAR review remain relevant today, as do the recommendations.

### **The focus of extension services**

The focus of extension in the Agriculture Department has been on what could be described as the semi-subsistence, or village, sector of the agricultural economy, which is appropriate. The larger, commercial farms

can access reasonably easily, and should be able to pay for, the technical advice needed from private sector agricultural specialists—although extension officers should be in a position to offer them advice about the latest departmental research results and relevant overseas research findings.

It is not reasonable to expect that the village sector—which comprises mainly very small to small individual or communal enterprises—pays for commercial farm advisers, and therefore it should be a major focus of the extension service. The department's (and indeed the government's) approach to this sector should, however, be radically changed. As we have noted, the approach to this sector through the agricultural policies and the many different projects and schemes adopted over the years has, in the main, had a detrimental impact on the sector. The policies and schemes have created a dependency culture that will be very difficult to change—but which must be changed if the contribution of agriculture to the Fijian people's living standards is to increase.

Rather than grandiose schemes to promote the commercialisation of the village farmer, based on the distribution of all kinds of farm inputs and subsidised credit, the agricultural extension officer's role in working with village farmers should be similar to that of the Tutu Rural Training Centre, and the few others we have mentioned, in helping to develop economic responsibility in young farmers and an appreciation of agriculture and the way in which it can improve their family's welfare.

The opening of the mobile phone market in Fiji and the prospect of more widely available services and much lower phone charges are highly positive for farmers and for extension officers. The wider the mobile phone coverage, the

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greater will be the benefits. Farmers have mobile phone access to traders on market information as well as being able to call the Agriculture Department's help desk for advice on farming practices. Improved telecommunications in the form of the availability of fast internet speeds will also allow extension officers and farmers to access web sites around the world for relevant information.

### Conclusions

The agricultural policies and schemes adopted by successive governments have failed because they have been based on a very poor understanding of the economic, social and cultural characteristics of the people involved in farming—particularly those in the traditional village sector. They have also failed because they have involved the government unnecessarily intervening in the agricultural sector in ways that have damaged the sector rather than assisting it. In the process, the policies and schemes have had highly detrimental impacts on research and extension in the department and have created and reinforced a dependency mind-set in the farming community.

Policies have been adopted without being subjected to detailed economic analysis and without a good understanding of what can be expected from the farming sector. In agriculture, the consequences of poor policy are difficult to reverse and indeed can affect more than one generation. Agricultural production cannot be easily switched on and off. The Agriculture Department must have the capacity to provide good economic

analysis of proposals coming forward from whatever source, which hopefully will lead to the rejection of inappropriate policies and schemes.

### Notes

- <sup>1</sup> There are frequent calls for government support for rice growing in Papua New Guinea, where domestic consumption is also met largely by imports. It is likely that rice growing in Fiji would also rank very poorly in terms of the returns to hours worked.
- <sup>2</sup> See Koko Siga (Fiji) Limited (2008) for an extensive discussion of the history of this form of government intervention in Fiji and the false assumptions that underlie it. With regard to the assumption that there is monopoly behaviour among traders because of their limited numbers, this article notes that there are almost 300 licensed produce exporters, of which 'around 50 are consistently active' (p. 11).
- <sup>3</sup> Capital grants for the Research Division for 1996–2008 are as follows ('000 dollars) in Table Note 3 below:

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<sup>3</sup> **Table Note** Capital grants for the Research Division for 1996–2008 ('000 dollars)

| 1996 | 1997 | 1998  | 1999  | 2000 | 2001  | 2002  | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|------|------|-------|-------|------|-------|-------|------|------|------|------|------|------|
| 519  | 442  | 1,772 | 1,122 | 640  | 1,016 | 1,052 | 620  | 514  | 585  | 344  | 111  | 0    |

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