

GULF PROVINCE

By Jeffrey Tauaole, Provincial Rural Development Officer

Jeffrey Tauaole is from Dobu village in the Esa'ala subprovince of the Milne Bay Province. He attended primary school at the United Church school at Salamo, then did correspondence lessons to Standard 9. In 1963 he went to Popondetta Agricultural Training Institute, and graduated in 1965. He was posted first to Kapogere, in the Central Province, then Misima, Alotau and Raba Raba in the Milne Bay Province. In 1974 he was posted to Tapini in the Central Province, and in 1975 to Kerema as PRDO.

Mr Tauaole is married with one child. His wife Agnes was formerly the postmistress at Tapini.

The area of the province is 42 540 sq km. More than one-third of the total area of the province is water and mangrove swamps.

The south-east season from January to July brings rainfall throughout the province. Average rainfall in the east is 2 328 mm per annum, although higher rainfall is received towards the west.

There is a truck road from Kerema to Malalaua. It will be connected to the Hiritano Highway to Port Moresby in the near future.

There are airstrips at Malalaua, Iokea, Kerema, Murua, Kaintiba, Ihu, Baimuru and Kikori.

There is only one government workboat operating in the province. Villages have a number of outboard motors for travelling on rivers, beside canoes.

Installation of STD at Kerema makes telephone communication to other provinces easier. Reception on VHF radios in the outstations is not very good.

People

The total population is 61 942. Approximately one-third of the population is away from the province, or in paid employment within the province, and the agricultural population is thought to be about 41 000.

Most people belong to the United Church covering all coastal areas. The Catholic Mission occupies most of the inland areas. The Salvation Army has taken a small population in Kerema Bay. Missions play a major part in running schools and health services.



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There are four main local languages, namely Toaripi, spoken by East Kerema, Orokol, spoken by West Kerema and Vailala, Koriki and Koroa spoken by Baimuru and Kikori, and Kavea spoken by Kaintiba area.

Besides the local languages, Motu is spoken in the whole province. Most of the young people speak English and Pidgin is only a very minor language in the province.

The people in the villages are self-sufficient and there has been only a small response to national development. However, more and more village groups are now trying to organize themselves to get financial assistance to improve their village affairs.

Land disputes are very common in the province due to the general shortage of land. Agricultural development is held back by this problem between the clans in some villages.

The highest education level in the province is Form 4. There are vocational centres at Malalaua, Ihu, Baimuru and at Veiru in Kikori. They all teach agricultural subjects such as fishing, crocodile farming, piggeries and cattle farming.

A number of Form 4 leavers are living in the villages and are helping in village development as well as leavers from primary school. Unfortunately they are only young people, so they have few rights to land

20

ownership. This discourages many educated people from agricultural development projects so instead they decide to go into town to look for employment.

The main staple foods in the Gulf are sago, banana, sweet potato and taro. People along the coast get their protein from fish and shellfish from the swamp.

Malnutrition is the main health problem in the province, due to lack of protein. More starchy food is consumed than protein. Malaria and chest infections are also problems in the province.

Self-help groups

The Erema Co-operation is a group which was organized by Tom Koraea, MP, in Kerema Bay. They fish and run a PMV from Kerema to Malalaua.

Nearly every village has its own women's club which provides accommodation and other hospitalities to government patrolling teams.

There is a co-operative society in nearly every village. They serve villagers by buying produce from the people and buying stock from Port Moresby for resale to the people in the village.

Political

There are seven local government councils in the province. The councils are having problems on their development projects because they have only small incomes and rely on rural improvement programme funds.

Economy

The Department of Primary Industry is playing a big part in the rural economy of the province. At present the province is short of experienced staff to do effective extension work. Shortage of accommodation is the main cause of staff shortage.

The province has good fishing potential, so more and more emphasis has been put on the fishing industry. Many groups and individuals have started fishing projects and are doing well under the supervision of the fisheries staff.

Tore Lokoloko, MP, and Tom Koraea, MP, have their own agricultural projects which are the biggest locally owned business in the province. They both have great influence on the people in taking up businesses.

The main agricultural activities in the province are listed here in their order of priority: crops—coconut, rubber, coffee, chilli, vegetables; livestock—fishing, cattle, crocodile farming.

Two local sawmills have been established, one at Moveave village in the Malalaua subprovince, and one at Baimuru.

A proposal to establish a hydroelectric scheme at Wabo in the upper reaches of the Purari River is being studied. This scheme will have a great effect on the development of the province and even the country. It will provide employment to the people of the province and the people around the area will have somewhere to sell their produce to get money. An agricultural extension centre is planned to be set up there in 1978-79.

Banking is a problem in the Gulf, through not having a bank branch. Banking services are operated by the Finance Department in main centres, but are insufficient to meet the demand.

Land settlement schemes have been established at Murua, Kupla and Kaiaam in Kikori. The blocks are mainly planted with rubber. Murua and Kupla are producing rubber now. Vegetables are being promoted at Murua, to supply Kerema town.

The Papua New Guinea Development Bank has given ten agricultural loans in the province. These projects are working well so far.

Purari hydro-electric power

In the medium to long term future the proposed Purari power scheme should have a big impact on agricultural development in the Gulf Province.

Even if the scheme does not go ahead for many years there is likely to be some effect on the villagers' agricultural outlook because of the activity of investigating teams. Their presence in recent years has already provoked questions as to what sort of agricultural and industrial development the province can expect, and it seems likely that there will be a continuing debate on this topic. Important factors will be the extent to which new marketing opportunities are made available and the extent to which dam and road construction will make agricultural land unavailable for cultivation.

Right now, however, some of the urgency has gone out of these questions, for although feasibility studies will continue, estimates of

the earliest dates for major construction work range from 1981 to 1996.

AGRICULTURAL DEVELOPMENT PROGRAMME

Coconuts

There are over 2 000 ha of coconuts planted in the province. The annual copra production exceeds 1 225 tonnes.

However, copra production dropped last year due to low prices.

This year a coconut census will be conducted in all areas. New plantings will be at Ihu (20 ha), Baimuru (12 ha) and Malalaua (20 ha). At Malalaua 20 ha of overcrowded coconuts will be renovated.

Four new copra driers will be built at Ihu, three at Baimuru, five at Kikori and two at Malalaua.

In following years, 40 ha of coconuts will be planted each year. A seed garden with high-yielding hybrid nuts will be established in 1980-81.

Rubber

There are 90 rubber blocks, 142 ha at Mlurua and 40 ha in other centres throughout the province. There are 182 ha in production, plus 61 ha immature. The value of rubber sold to the Department of Primary Industry last year was K60 000.

Low prices for rubber last year caused a drop in production. Only a small percentage of mature rubber trees is being tapped regularly.

The 1976-77 aims for the various subprovinces are as follows.

At Mlurua, plant 20 ha, established 30 000 common seedlings in a nursery for budgrafting, and distribute seedling to other centres.

At Hevero, open up 350 trees to tapping, and plant 4 ha.

At Kikori, establish six smokehouse factories.

At Baimuru, plant 14 ha of new rubber.

At Ihu, plant 300 trees in a new block, and take a girth census in five existing blocks.

Rubber processing will commence at Baimuru and Kikori in 1977-78.

Cattle

There are 30 individually owned and 10 group owned projects. Seven new projects are

being established. There are 236 cattle owned by Papua New Guinean farmers.

The Catholic Mission at Kaintiba and the United Church at Terapo own cattle projects. They help in providing stock and encourage villages to set up smallholder cattle projects.

The demand for cattle is increasing. This year, 11 projects will be fenced at Kaintiba, 1 project will be stocked at Baimuru, and 4 loan applications will be processed at Malalaua.

Six new projects will be investigated at Malalaua, four at Kaintiba and four at Ihu.

At Malalaua, six stock yards will be completed. Investigations for a slaughter slab at Iokea will be carried out.

Improved pasture will be established on existing projects in the Kaintiba area. A cattle breeding centre will be established this year at Bema mission.

Coffee

There are 40 ha of Arabica coffee in the Kaintiba area, and 20 ha of Robusta coffee in coastal areas.

Interest in coffee is very low. An intensive extension programme is needed to inform people about better prices. Coastal people have other means of earning income that are more attractive to them.

A programme of expansion of coffee plantings is planned. New nurseries will be established at six inland villages in the Malalaua area, and at eight villages in the Kikori area. New coffee will be planted at Kikori (2.4 ha) and at Kaintiba (40 ha).

In the Hevero area, 8 ha of old coffee will be stumped back and renovated, and in the Ihu area, 5 ha of coffee will be stumped back and renovated.

Regular buying of coffee will be organized for Malalaua, Kaintiba and the Wena valley.

A coffee factory will be established at Komaro in the Kikori area.

Twenty ha of coffee will be planted each year in the Kaintiba area for the following four years. In 1978 six village coffee factories are planned for the Wena valley.

Chillies

Interest is increasing in this crop. In coastal areas there are 40 ha planted, and in the Kaintiba area 4 ha.

New plantings of this crop are planned during the coming year. Six ha will be planted at Ihu, 2.4 ha at Baimuru, 12 ha at Kaintiba, 5



Jeffrey Tauaole, PRDO, with the Chairman of the Gulf Province Area Authority, Ope Oeaka, visiting a poultry neat bird raising project.

ha at Kikori, 10 ha at Hevoro, and at Malalaua the area planted to chillies will be doubled.

At Murua, $\frac{1}{2}$ ha will be planted and harvested for seed distribution. A storage shed will be built at Ihu. At Kaintiba buying points will be established and a regular buying schedule started. A chilli drier will be constructed at Kikori.

After this year, no further expansion is planned for the next five years.

Rice

The total area planted to rice in the province is less than 4 ha. Interest is increasing in this crop. Attempts to promote rice-growing in the Ihu area, however, were not successful.

A rice-growing training programme is planned for Murua. A seed multiplication area will be planted there, and a demonstration area will be used to promote interest in rice-growing.

Interest in rice is increasing in the

Malalaua area. In 1976-77 1.6 ha of rice will be planted in four villages in the area.

In the Kikori area, 4 ha will be planted at Kumaio, and a rice mill will be established. Four more hectares will be planted the following year.

In 1978 a rice mill will be installed in the Malalaua area, and in the following year, a tractor and machinery hire service will be introduced there. Mechanical harvesting is planned for the Malalaua area in 1980-81.

Pigs

This programme was mainly confined to the Ihu area last year. A lack of staff qualified in pig husbandry hampered development. Pig projects in the area remain in a primitive condition.

There is one project financed by the Development Bank and three projects self-financed.

Pig feed is expensive and hard to get in this area.

In 1976-77 a pig breeding and distribution centre will be established at Murua.

Loans for two new projects will be processed, and four proposed projects will be investigated this year. Two new projects will be added each year.

By 1980, if the Purari Hydroelectric Scheme is going ahead, its workforce will provide a ready market for pig meat. Pig production will then be encouraged in all areas.

Poultry

At the request and with the assistance of the Area Authority a trial introduction of 200 chickens and 43 Muscovy ducks was made. About 20 % of the chickens died from coccidiosis and kidney disease. They were also very expensive to feed and are not suited to the wet conditions.

All of the ducks survived and as they seem well suited to the local conditions, a programme of distribution will be commenced aiming at placing 200 ducks in the villages in 1976-77 and a further 1 000 up to 1980.

Fishing

Last year freezers were installed at two villages in the Kikori area, and commercial fishing was established on a regular basis. About 140 kg of fish from Kikori is sold on the Kerema market each week.

This year 20 new fishermen will be trained to fish in a commercial way in the Kikori area. Four more freezers will be installed in Kikori villages, and a holding freezer will be built at Kikori. Difficulties in getting transport for fish from Kikori will be tackled, and a market for Kikori barramundi will be investigated at Mendi. Marketing of barramundi in Mendi is expected to begin in 1978. With the development of the Purari Hydroelectric Scheme, expansion of the Kikori fishery is planned for 1978-80.

A deep freezer for fish storage has been installed at Malalaua. Holding freezers at Kerema and Wabo (Purari site) are planned for 1980-81.

This year two deep freezers will be installed at Baimuru. Further expansion is planned for this fishery in 1979.

A fisheries survey will be conducted along the coast at Ihu, and 12 local fishermen will be trained to set and mend nets. Two smokehouses will be built.

One commercial fishing group has been established at Hevoro. This year two smokehouses will be built. Four 3-week training courses will be held at Hevoro, for fishermen from all areas.

Vegetables

Last year demonstration plots were planted at Murua. Field extension work was commenced and interest in vegetables is growing. Vegetable seeds were distributed in selected centres. The aim is to make these areas self-supporting in vegetables. Some surplus production has been sold in the Kerema market.

In 1976-77 vegetable markets will be established in all main centres. A government Fresh Food Market will be set up in Kerema.

The needs of the Purari Scheme will be ascertained, and a programme to supply sufficient vegetables for employees working on the scheme will be begun.

One hundred vegetable gardens totalling 24 ha will be established in the Kerema, Malalaua and Kaintiba areas. One tonne of English potato seed will be distributed in the Kaintiba area.

In the Baimuru and Kikori areas new crops will be promoted to help overcome malnutrition problems.

In 1977 vegetable trials in the Purari area will be commenced, and vegetable gardens will be established there in 1978.

By 1980-81 the road link to Port Moresby will probably be completed. Vegetable plantings in the Malalaua area will be increased and vegetables from there will be marketed in Port Moresby.

Cardamoms

Two gardens totalling 2.4 ha of cardamoms have been planted in the Kaintiba area. Interest in this crop has been increasing in the area.

This year four nurseries will be established to increase the supply of planting material, and an additional 3 ha of cardamoms will be planted in the Kaintiba area.

A series of demonstrations will be held to teach people proper harvesting techniques. A marketing system for cardamoms will be arranged.

Plantings in the Kaintiba area will be increased by 5 ha each year. A centrally situated cardamom drier will be built in the Kaintiba area in 1977-78.

Sago

Sago marketing is a new activity. Large areas of sago have been established in the Malalaua area. This year 40 sago growers will be encouraged to produce 45 kg of sago each for sale. These growers will be advised on cleaning and thinning their sago areas.

Improved processing methods will be introduced, to produce cleaner, drier sago with longer storage capacity.

In 1977-78 commercial sago production in the Baimuru and Kikori areas will be established.

This programme is, however, restricted by present poor prices for sago, and lack of markets.

Corn

Corn is grown in most subsistence gardens, and small amounts are sold in local markets.

A corn seed multiplication plot has been established at Murua, and 500 kg of seed will be available for distribution this year. Ten demonstration plots will be established, and 100 growers will be taught how to grow and use corn to better advantage.

Corn seed will be distributed to 20 settlers in the Murua area, who will be encouraged to

grow this crop for sale at the Kerema market.

Plantings will be increased to 8 ha in the following year. In 1979-80 planting of corn as stock food will be commenced.

Crocodile farms

There are four Department of Primary Industry crocodile farms, stocked with 300 crocodiles. Twenty-nine village crocodile farms have been established. Twenty are in the Kikori area and 9 in the Baimuru and Ihu areas.

Interest in crocodile farms is increasing.

This year at Kikori, stock in the existing 20 farms will be increased from 10 to 50 crocodiles, and 10 new farms will be established.

At Baimuru 12 new farms each stocked with 50 crocodiles will be established. Two 1-week training courses will be conducted for 20 farmers.

Six farms will be constructed at Hevoro.

Next year 12 crocodile farms will be established in the Malalaua area, and the number of farms in other areas will be increased to 50. Twelve new farms will be established each year for the following three years.

POULTRY RESTRICTIONS LIFTED

The Minister for Primary Industry, Mr Boyamo Sali, has lifted restrictions on the importation of poultry products from Australia.

The ban which was imposed following outbreaks of the disease Fowl Plague in poultry in Victoria, had meant that no chickens or poultry products had been permitted entry into Papua New Guinea between 23 January and 11 March.

Mr Sali said that it was fortunate Australian animal health authorities had been able to contain the outbreak to a few farms in Victoria.

"If the outbreak had spread it could have had very serious consequences for our

developing poultry industry in Papua New Guinea because we still rely very heavily on the importation of live chickens", he said.

Mr Sali said this recent crisis in Australia highlighted the need for Papua New Guinea to achieve self-sufficiency in poultry products, particularly poultry meat.

He said this could be achieved using smallholder farmers in the growing phase of broiler production.

Mr Sali said Papua New Guinean smallholder farmers had shown they were capable of producing a good quality product economically and therefore should receive every encouragement to take their rightful place at the centre of this rapidly expanding industry.