

# WESTERN PROVINCE

By Peter Miria  
Provincial Rural Development Officer

*Peter Miria is from OPA Village in the Bereina district of the Central Province. After attending primary school at Yule Island, he won a scholarship and completed his high school studies in Australia. He then attended the Vudal Agricultural College in 1965. After graduating he was posted to headquarters as an Assistant Publications Officer. He was then posted to Madang in 1970, then to Saidor and back to Madang again. In 1972 he went to Geneva with a Papua New Guinea trade delegation to attend the World Cocoa Conference for one week. Between 1973 and 1974 he was posted to TAMBA Oil Palm settlement scheme and Kimbe both in the West New Britain province. He was appointed the PRDO for the Western Province in January 1975. Mr Miria is a bachelor.*



*Peter Miria*

## PROVINCE DESCRIPTION

The Western Province has a total land area of 99 880.7 sq.km, and is the largest in Papua New Guinea. There are 5 districts, namely Daru, Morehead, Balimo, and Nomad and Kiunga.

### *Daru*

The Western Provincial Headquarters is located on Daru Island, which has an area of about 15.8% of the total area, and accommodates almost 24% of the total province population, with a density of one person per sq.km. Daru is only 1½ hours' flying time from Port Moresby.

### *Morehead*

Morehead District occupies 21.3% of the total province land area, and accomodates 7% of the total population, with a density of 0.2 persons per sq.km.





*Near Daru Jetty*

#### *Balimo District*

Balimo District has a land area of 15.6% of the total area of the province, with an estimated population of about 25.5% of the total population, a density of 1.3 persons per sq.km.

#### *Nomad District*

Nomad District is the largest district, in terms of land area, although not as densely populated as Balimo and Kiunga. Nomad has an area of 33.3% of the total land area of the province, but only has 17.3% of the total population, with a density of 0.4 persons per sq.km.

Nomad is the Western Province's main chilli producer.

#### *Kiunga District*

Kiunga District is situated right on the border of West Irian and not far from the proposed OK Tedi mine only four kilometres from Ningerum. Its land area is 13.8% of the total province area. Kiunga has a population of 26.6% of the total Western Province population, with a density of 1.5 person per sq.km.

#### CLIMATE

There are two distinct climates in the province. The southern two-



fifths of the province has a sub-humid tropical type climate. The seasons are very variable but on average the dry season lasts from August through December. Occasionally the dry season can be very severe and drought conditions can prevail for many months.

Rainfall in this part of the province totals 2030 mm or less. The vegetation is mainly rainforest and savannah.

The northern two-fifths of the province has a wet equatorial type climate with an annual rainfall ranging from 2500 mm to more than 7500 mm and heavy rain all year round.



*Tropical rain forest lining the banks of the Fly River*

#### GEOGRAPHICAL FEATURES

Apart from a small, extremely rugged, mountain area along the northern border, the remainder of the province is low-lying. Vast swamps and river flood-plains are interspersed with low, gently undulating ridges in the south, 30 km or less above sea level, and more closely-spaced, steeper, rainforest-clothed ridges in the north.

Extensive sago swamps abound inland while large mangrove areas occur along the lower tidal reaches of the river system.

The general soil fertility level is low but much of the highest land has some agriculture potential.



## INFRASTRUCTURE

The province has almost 1000 km of rural roads. The government stations are linked by road. The only road usable during the whole year is the road between Kiunga and Runginae. The road was extended to Ningerum in 1977 and will link up with a road being built from Tabubul to Ningerum.

Balimo, Lake Murray, Suki, Kiunga, Morehead and Daru all receive their freight by water and air transport. Government vessels operate between Daru and other centres within the province. The Area Authority has purchased three small diesel-powered dories, which now operate from Kiunga, Lake Murray and Daru.

The Department of Primary Industry took delivery of six small aluminium barges donated by the New Zealand Government in 1977.

The province has a main airport at Daru and 8 other airstrips and 27 authorised landing areas. Air transport is unreliable because of bad weather and is very expensive.

Daru has a telephone system worked through a manual exchange. Daru is connected to the national system by a high frequency link with Port Moresby.



*The Fly River*





*Fishing beach, Daru*

## PEOPLE

The 1976 population was estimated to be about 82 000 and is growing by 3% per year.

The population density, less than one per person per sq. km, is the lowest of all provinces. The population is very unevenly distributed. There are some areas with a moderately dense population — Kiunga, Ningerum, the Aramia valley and Nomad for example.

Approximately 86% of the people live in rural areas. The villages are small and widely scattered. The separation of these relatively small communities by long distances causes great problems for the people who have difficulty in marketing produce and receive less than a fair share of government extension and other services.

An estimated 11 480 people or 14% of the population live in towns in the province and at this stage urbanization has not caused many problems.

Absence of people from the villages is lower in this province than in many others and most of the absentees remain within the province.

There are many languages spoken. Police Motu is the Lingua franca, Pidgin is spoken in the Northern areas of the province. Some of the biggest language groups are Kiwai, Yongom, Awini and Biame.

The province is relatively well serviced by the Health and Education Departments.

There are 3 hospitals and many aidposts. Regular health patrols visit inland areas. The infant mortality figures show that 187 out of 1000 village children die before the age of 5 years. The Health Department says that 420 out of every 1000 children suffer from malnutrition.



The main disease in the province is malaria. The province has the highest leprosy rate in the country and recent figures indicate the number of cases.

There are 55 primary schools, 2 high schools, and 5 vocational centres. An estimated 68 % of eligible children attend primary schools and this is well above the national average.

The main missions in the province are the United Church, the Catholic and the Asian Pacific Christian Mission.



*St. Louis Montfort Cathedral, Daru*

## ECONOMY

Wage employment in regular work involves only a very small percentage of Western Province people.

Farming, gardening, gathering, hunting and livestock raising are very important activities.

Present production of cash crops is low but sizeable increases are planned. Crocodile skins are the province's main income estimated at K390 000 for '73/74. The industry is expected to grow to K400 000 by 1979, with the growth of crocodile farming. Rubber a small industry at present, is expected to grow to K165 000 by 1980.

Other cash crops are chilli, copra and vegetables. Crayfish, yabbies and barramundi bring a high income for the Kiwai people.

There are three copra plantations which were established in the province prior to World War 1. These plantations are now of low value, due to the age of the trees.



Part of the Kiunga area has been assessed for timber potential. This area includes 204 940 ha, and log volume of usable timber in the area surveyed is 1 206 549 cubic metres. A sizeable volume of millable timbers are available in other areas.

Small sawmills operate at Kiunga, Balimo, and Morehead. By the end of 1977 a small sawmill will be operating in Kavianang. There is a long history of mining exploration in the province.

Seismic surveys are planned for areas between Oriomo and Balimo for the Fly estuary.



*Fishermen from Parama readying their fishing gear and canoes before setting out to sea*

There are large deposits of copper at OK Tedi. One estimate is that there are 162 million tonnes of 0.9% ore and sharn deposit estimated to be 27 000 000 tonnes of 2.5% copper. A new drilling programme has commenced and this will continue for one year. At the completion of this period the deposit will be evaluated and a decision about mining will be made.

About 100 labourers will be employed at OK Tedi during the evaluation period. If there is a decision to build a mine at OK Tedi the project will probably have a construction phase lasting



four years, which may employ up to 3000 people, and the operations phase will last for about 20 years, provide jobs and support a town of about 10 000 people.

There is little light industry in the province. Present activities include two small mission-owned sawmills, one village sawmill, and one cane furniture business.

If the mining project goes ahead there will be opportunities for modern service industries and sub-contracting associated with the mine and the mining town.

A new Cultural Centre has been established at Balimo and this has led to a resurgence of interest in carving and traditional art. Several thousand kina worth of artifact businesses have been developed in other areas.

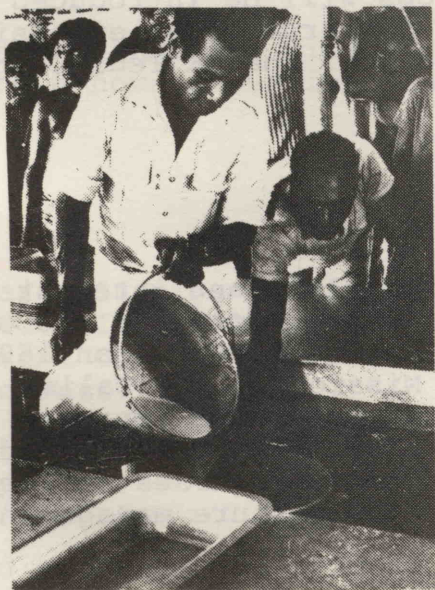
Daru has five medium-sized retail stores. Two traders operate boats and engage in retailing and crocodile skin buying.

The Papua New Guinea Development Bank has a representative in the province. Most loans have been made to rubber growers so that they can purchase processing equipment, and to fishermen to allow them to buy boats, outboard motors and nets.

Rural Improvement Programme grants to the province have been substantial, but the councils who receive the bulk of the money are having difficulties making proper plans for the use of the money.

The province is under-developed and to date little has been done to overcome this, due mainly to unco-ordinated efforts of the various departments. The OK Tedi mine is the big hope for the province.

The fishing industry is capable of further development, rubber will continue to be the main cash crop; there is limited potential for cattle raising, but crocodile farming could develop into an important industry.



*Rubber Factory, Lake Murray*



## AGRICULTURAL DEVELOPMENT PROGRAMME

### PROJECT MANAGEMENT

By this is meant staff-training, agricultural shows, supervision of field programmes, conferences and staff meetings, agricultural stations and base camps, programming, planning and policy making, local government and provincial government meetings, and staff recruitment and orientation.

Field programmes have been acutely affected by staff going on training courses, transfers, shortage of funds and transport, lack of adequate housing and bad weather conditions. Therefore the planned base camps have not been established and not all the housing programmes have been completed.

In 1979 we anticipate a 2% increase in resource usage. Additional staff will be recruited, new equipment bought and all extension housing completed. Intra-provincial visits by the Provincial team will be organized. There will also be a refresher course for all District Clubs in Daru in 1979.

### SUBSISTENCE NUTRITION

There has not been a co-ordinated education programme set up at Province or District level to make people in the remote areas aware of malnutrition. Malnutrition is widespread in the Western Province. Forty-two percent of the children attending Maternal Child Health Clinics suffer from malnutrition. The staple food crops are yams, bananas, sago, taro, and to a lesser but increasing extent, sweet potato. The average food garden is 0.1 ha per family, and the staple diet in most centres is sago.

New vegetable plantings are being introduced to improve nutrition. The department is encouraging sale of food at major centres. Department of Primary Industry boats are collecting food for sale at Daru and other centres. Swamp crops will be introduced to village farmers. In the Tabubul and Ningerum areas extension work will be aimed at meeting the demand of the OK Tedi Copper Development work-force.

### CATTLE

Several projects have been stocked with cattle and interest is increasing particularly in and around Balimo, Morehead and Oromo Bituri areas. A cattle breeding station with more than 150 breeders has been established at Kewa Mission in the Balimo area. It is planned to stock more projects and establish improved pastures, to establish a rural slaughter slab at Balimo, and for field officers to undertake animal production courses at Lae. Farmers will also be trained in cattle and pasture management.



## FISHERIES

Local interest in fishing to earn cash is increasing. The fishing industry has 2 main components: salt-fish and yabby (fresh-water crayfish).

The yabby industry is to be expanded by harvesting new areas, Fly Estuary, Middle Fly, Lake Murray and Balimo. A new vessel and fisheries experts will be made available by the Food and Agriculture Organization to spearhead the development of the yabby resource. Villagers in remote areas will be shown how to catch and hold the fresh water crayfish until they can be picked up.



*Fishing is an important activity in the Western Province*

A salt fish industry has been established in the Daru area.

The fishing industry will be encouraged to base fishing vessels in Daru and a new processing plant there will soon go into operation.

## PIGS

There are 450 pigs on 13 semi-intensive farms with 13 families involved. It is planned to establish a piggery for the Kiunga Local Government Council and assist farmers with buying their pig requirements.

## POULTRY

Day old chickens and muscovy ducks have been purchased and forwarded on to farmers. It is planned to purchase more of these and also geese, for interested farmers.





*Bringing in barramundi from canoes direct to the factory on the beach*

#### COFFEE

All the coffee in the province was officially destroyed in 1973 and production was down to zero because of quarantine restrictions. It is now aimed to establish 30 hectares each in Nomad, Daru and Kiunga and to conduct establishment and quality control patrols.

#### RUBBER

Production of rubber in 1975/76 was 27.2 tonnes and in the next four years planting will be increased each year by 200 ha up to a total of 2800 ha in 1981. New 5-men factories will be established, and tapping, processing and budgrafting courses will be conducted. Marketing facilities will be provided. The possibility of setting up a rubber growers' association will be examined.

#### CHILLIE

Chillie is being promoted throughout the province. The Nomad area is a large producer, other areas are Daru, Balimo and Morehead.

Interest is high and plot sizes will be increased over the next few



years and new plantings done. Seeds will be distributed to all districts, spades supplied to the farmers and marketing facilities provided.

#### COCONUT

The total area planted is estimated to be 1219 ha, of which 55% is bearing, about 70% either non-bearing or new plantings and 7.5% senile. There are over 4000 indigenous growers, with area ranging from 0.5 ha to 10 ha. The main coconut growing areas are Balimo, Morehead and Daru. There are 26 hot air driers and numerous smoke houses. In the next 3 years plantings will be increased each year by 2 ha.



*Coconuts*

#### WILDLIFE

Crocodile farming is the main activity in this field. There is also some cassowary and wallaby catching.

There are 45 village crocodile farms with a total of 750 crocodiles held in pens, in the Lake Murray, Middle and Lower Fly, Balimo, Morehead, Oriomo and Biture areas. There are established demonstration farms at Lake Murray, Baboa and Balumuk.

The wildlife management area has been established at Tonda and a committee has been appointed to manage it.



Some of the problems are shortage of feed, lack of funds to purchase live crocodiles, lack of transport for farm equipment distribution and for patrols, and lack of hunting and fishing equipment for farmers.

All village pens will be increased to 50 crocodiles per pen and maintained at that level. The number of village crocodile farms will be increased annually by 50 over the next 3 years.



*Crocodiles*

Photographs: Office of Information