# EAST SEPIK PROVINCE

By Miri Setae, Provincial Rural Development Officer

Miri Setae was born at Tapala village in the Malalaua subprovince of the Gulf Province. He went to primary school at home, then to Kerema high school, and Sogeri secondary high school, then to Vudal Agricultural College in 1967. After graduating in 1969 he spent some time working at Vudal, mostly in livestock work—cattle, poultry and piggery. In January 1972 he went to a livestock course at the East-West Centre in Hawaii, for six months. After he came back from Hawaii he was posted to 3-mile Livestock Station, Lae, then to Finschhafen and Kabwum in the Morobe Province, before going to Wewak in February 1974. He became PRDO in October 1974.

Mr Setae is married with one child. His wife has recently taken a job in Community Development in Wewak.

The province has a dry season from June to September, and a wet season from November to March. Average rainfall is 1 980 mm, with the highest in the Amboin foothills at 3 048 mm. Inland areas are very dry in July and September.

The average temperature ranges from 25 °C to 34 °C.

Between the West Sepik border and the Murik Lakes the terrain is undulating to mountainous within 30 km of the coast. The remainder of the province is 70 % flat with 50 % of that swampy. The dominant feature is the Sepik River and flood plain, approximately 480 km long.

About 25 % of the province is arable, mainly in foothill country. As swamps dry seasonally, areas are planted with subsistence crops.

The total province area is 57 000 sq km.

The vegetation is rainforest on the mountain slopes, with sago and rainforest near rivers, and mangroves on the coastline, particularly round the Murik Lakes. The flood plains are mainly grasslands.

Road systems combined with the river system and a number of airstrips give all areas good accessability. STD telephone links Wewak, Maprik and Angoram with the rest of the country. All other stations have regular radio schedules.



Miri Setae

People

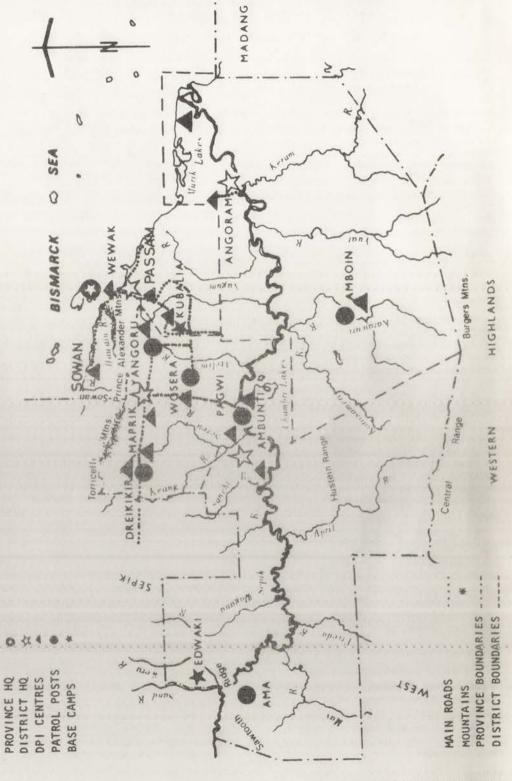
The population is 214 000. Maprik is the most densely populated subprovince with 25.6 people per sq km.

Language groups are very diversified. For example, in the Wewak area there are three types. Saussi is spoken in Wewak coastal area, inland and in the Sepik plains. River people speak various other dialects.

There are 86 primary schools of which 53 are run by the Catholic Mission. There are three high schools in the Wewak area and two in the Maprik area. There is one vocational centre at Wewak, one at Maprik and two at Angoram. There is a teachers' college at Wewak.

The province has a main hospital at Wewak and smaller hospitals at Maprik and Angoram. There are five other major health centres and over 100 aidposts.

Health problems are malaria throughout the province, and tuberculosis in the Angoram area. A major problem is malnutrition—possibly 40 % of children under six years old are malnourished. The Sepik River people can improve their diet with tilapia, but inland people have difficulty as the main foods are sago, yams, etc.



#### Missions

There are about 12 denominations in the province. The oldest missions in the area are the Catholic and the Assemblies of God. The Catholic Mission provides services such as air services, health, education and agriculture to the province.

#### Political.

The Prime Minister, Michael Somare, represents the regional electorate of East Siepik. The other members of parliament are William Eichhorn (Angoram), Sno O'Shannesy (Wewak), Pita Lus (Maprik, Minister for Corrective Institutions and Liquor Licensing), Lainus Hepau (Yangoru-Siaussia), Tormble Kabai (Dreikikir), John Matik (Wosera-Gaui) and Anskar Karmel (Upper Sepik).

Other leaders include local government council presidents Beri (Wewak), Wongiwon and Garu (Maprik), Amoben and Watum (Angoram), traditional leaders Labu (Wewak) and others, and Sepik Producers' Co-operative Association directors Akiro,

Lipan and Wongu.

Self-help groups in the province include, in the Maprik and Ambunti area, the Sepik Producers' Co-operative Association, and in the Wewak area, the Cattlemen's Cooperative, the Cocoa Growers' Co-operative, and the Wholesale Co-operative.

There are 12 councils in the area. The highest tax rate is paid in Wewak (K12 male, K5 female) and the lowest in Ambunti (K3 villages, K5 station). All councils are actively implementing the rural improvement programme.

Maprik, Wewak and Ambunti councils have established agricultural committees.

There is no area authority, but its functions are being handled by the East Sepik Province Co-ordinating Committee.

#### Economy

Land disputes are common wherever there is a shortage of arable land, mainly in the Wewak area where fights occur.

As roads extend, and the cash economy becomes established, people are becoming business-minded. They own PMVs, road maintence equipment for hire, etc. Ambunti people have little business interest as yet.

Agricultural development in the province is most successful. Dryland rice and coffee together earn K1 million per year, with 20 000 growers. There is rapid expansion in livestock, wildlife, cocoa, rubber, fishing and coconuts

A development scheme, mainly rubber, is planned for Gavien. There is a government buffalo farm with 600 head. All agriculture is in the hands of local people.

Tourism is becoming important. There are houseboat cruises from Ambunti to Angoram tied in with large sales of artifacts.

There is little mining. There are three sawmills. The main one is Sepik Timbers at Wewak, and two small ones in Angoram.

The Department of Forests has a research trial at Kunginzini near Maprik, to find what type of tree will grow best on the Sepik plains. Seed distribution is carried out from a nursery at Maprik. They are also investigating minor forest products — copal gum and massoy bark.

# The East Sepik Agricultural Development Proposal

The Asian Development Bank is providing technical assistance to the Papua New Guinea government for a study of the East Sepik's agricultural and agro-industrial development potential. A group of Belgian consultants working in collaboration with the government and private interests has been investigating possible avenues of development, and is currently drawing up a draft report for discussion with the government and the Bank.

If agreement is reached, the scheme will be ready for funding to start in the financial year 1977-78. At this stage developments proposed are two types—

1. An improvement and upgrading in the support resources available to settled village and river people in their cash cropping, for example coffee and cocoa, and in the processing and marketing of Sepik tilapia.

The coffee and cocoa work would involve field trial experimentation and extension leading to increased yeilds from existing plantings, and further expansion of the crop areas. Field station facilities are likely to be placed in the Angoram, Bainyik to Maprik, Urimo and Wewak areas to assist this work.

2. The expansion and initiation of smallholder settlement schemes.

A livestock settlement scheme based on water buffalo and utilizing the grasslands of Sepik plains is envisaged. The present herd based on Urimo is being built up. The Gavien scheme is likely to receive Bank funding in its expansion and will now involve other tree cash cropping, cocoa, in addition to rubber.

Assistance is also likely in the improvement of infrastructure, health and nutrition services, and in the incorporation of a relevant agriculture content in primary education.

# AGRICULTURAL DEVELOPMENT PROGRAMME

#### Coffee

Coffee is the major cash earner of the province—it earned well over K1 million in 1974-75, with a production of 1 815 tonnes of parchment.

There are 8 789 growers. Maprik subprovince is the main area with 6 456 growers.

The only problems with this crop are that it is tedious to harvest and process, and most gardens have never been pruned back and maintained properly because of people's lack of understanding of the importance of this.

The Department of Primary Industry's extension effort is concentrated on encouraging increased production by pruning and better maintenance in the old gardens.

New gardens are being established in Ambunti, Wewak, Angoram and Maprik areas.

A three-week course in all aspects of coffee-growing and processing will be held for farmers in September.

The department is encouraging coffee growers to buy pulpers where needed. In the present year 35 coffee pulpers will be made available for the Bainyik, Ambunti and Angoram areas.

The Sepik Producers' Co-operative buys coffee in the Ambunti and Maprik areas. Coffee purchases in the Angoram area will be handed over to a local group in 1977-78.

In 1978-79 the department will investigate the possibilities of a factory to make instant coffee in the province. If this is proved feasible, a start will be made with coffee roasting plant in 1979-80.

Extension efforts will continue as at present, provided price is maintained.

#### Rice

Rice is the second most important crop in the province. There are about 10 ha planted at Ambunti, 25 ha at Angoram, 9 ha at Wewak, and some at Maprik.

Last year, production aims were not achieved, and production dropped 50 % in Maprik. This year an intensive campaign is being conducted on radio, in meetings, demonstrations, etc. to encourage people to increase their plantings.

The department assists the Sepik Producers' Co-operative Association to buy rice, and buys rice in the Angoram area where the SPCA is not operating.

The department arranges distribution of seed. In 1977-78 a new variety of seed will be introduced. The possibilities of planting wet rice will also be investigated, and 10 gardens of wet rice as a trial only will be established at Maprik. Equipment such as winnowers, threshers and milling equipment are made available where needed. The Bainyik rice mill is to be replaced in 1977. Two small rice mills will be supplied to villagers at Porapora and Ambunti in 1977. In 1978-79 a medium-sized rice mill will be installed at Angoram, and a small mill will be supplied to Amboin.

The long term aim is to increase production each year up to 2 500 tonnes by 1981.

#### Cocoa

Cocoa is mostly grown along the coast, in the Wewak subprovince. There is some activity at Maprik, and cocoa will be introduced to Angoram once the road is through.

There are 1 159 growers, with 416 ha in the Wewak area, and 177 growers, with mainly immature trees, in the Maprik area. Production is approximately 300 tonnes.

Expansion will follow the interest of the people. At Angoram, Marienberg planting will be enlarged to 12 ha, and 4 new gardens of ½ ha each will be started along the new road. A clonal propogation garden will be set up at Gavien.

Planting will continue in the Maprik area where people are interested. In the Wewak area 50 ha of coconuts will be interplanted with cocoa in the coming year. Seedling distribution will be continued. A clonal propogation garden will be set up at Passam.

A course will be conducted this year on



Stockman at Urimo Livestock Station keeping watch over mixed herd of buffaloes and some cattle.

growing, maintenance and processing.

Growers will be encouraged to join the Stepik Cocoa Growers' Co-operative. The co-operative handles fermenting, drying and shipping of all cocoa to Madang.

Expansion will continue along these lines, and production is expected to reach 300 tonnes by 1980-81.

#### Cattle

At Ambunti, there are 376 head on 25 projects. At Angoram there are 1 200 head on 177 projects. At Maprik there are 1 646 head om 120 projects. At Wewak there are 6 380 lhead on 123 projects.

About K5 000 is paid every month to the ffarmers, for sale of their cattle, and the innerest of the people is increasing each day. The greatest achievement so far is establishing two rural slaughter floors, at Maprik and Amgoram. A chillroom will be installed at Maprik this year, and one is planned for Amgoram in 1979.

In 1976-77 new projects will be established and existing projects expanded in each area. Pasture improvement by planting with stylo, para grass and pueraria will be carried out in selected areas.

A project management course will be conducted once a year, and the advisory service to farmers and the Cattlemen's Cooperative will be continued.

Cattle project numbers are expected to reach 376 by 1979.

#### Buffalo

Buffalo will be introduced to 18 interested farmers near Urimo this year. The number of buffalo projects will be increased to 25 in 1977-78, and in the following year buffalo will be introduced to Ambunti and Angoram areas.

# Poultry and pigs

In the Angoram area there is one chicken and one duck project. In 1976-77 a 20-breeder duck pen and a 100 meat bird chicken pen will be set up.

In 1977-78 24 peanut hand-grinders will be introduced, and production of locally grown stock feed will be encouraged. With the availability of locally grown feed, an increase in pig and poultry projects to 15 or 20 is planned. Two dozen more hand-grinders will be introduced the following year, and pig or poultry projects will be increased to 30.



Marui crocodile farm. Sago swamp in the background is to be used for a breeding place.

#### Coconut

Coconuts are mostly grown along the coast, mainly in the Wewak subprovince. There is also a little at Angoram.

The low price for copra has caused people to lose interest in this crop.

In the Angoram area there are about 1 100 growers with 1 122 ha, and 15 copra driers. In the Wewak area there are 468 growers, with 3 024 ha (685 ha immature) and 2 permanent driers. There are other driers which are below standard. Production from the Wewak area was 2 269 tonnes last year.

The Copra Marketing Board has a subdepot at Wewak, handling copra from both East and West Sepik provinces.

Plans for this crop are as follows.

In the Angoram area, place cattle under coconuts in five gardens each year; organize a group to buy the copra.

In the Wewak area, plant 50 ha of coconuts this year, interplant 50 ha with cocoa each year for the next three years, construct 10 permanent copra driers this year (funded by the Development Bank), and five driers per year in the following four years.

A farmer training course on processing of copra will be conducted in the Wewak area this year.

In 1977 the Department of Primary Industry will look into the possibility of establishing a small copra crushing mill; if feasible this will be set up in 1978-79.

#### Wildlife

Wildlife extension activities are new in the area, but gaining interest from the people both near the water and inland.

### Wildlife management

In 1976-77 a management area is to be established in both Ambunti and Angoram subprovinces. In the Wewak subprovince, people will be encouraged to set up wildlife management areas at Sepik Plains and a forest area. A wildlife sanctuary in the Wewak subprovince is planned for 1978-79, and one for Ama in 1980-81.

#### Crocodile farms

In the Angoram area there are 36 village crocodile farms. There are two demonstration farms, one at Angoram and one at Amboin.

In the Ambunti area there is one farm at Marui and one proposed. In the Wewak area one crocodile farm project is to be started as a trial.

Plans for crocodiles in 1976-77 are as follows.

In the Angoram area, construct demonstration farms at Amboin and Angoram, establish nine more crocodile farms and increase stock to 250. At Ambunti, complete one farm, and establish two more willage farms. In the Wewak area establish one crocodile farm.

In 1977-78 five farms are planned for Ambunti subprovince and two for Wewak.

Annual courses, starting this year, will be conducted for government officers and willagers.

# Butterflies

In the Maprik area 1 500 butterfly specimens valued at K1 000 have been raised im 6 months.

Planting of butterfly feed plants will be encouraged in 1976-77. The department will maintain quality control, establish a small collection of butterfly specimens at Bainyik, and assist committees.

#### Cassowaries

Cassowary farms will be established near Marui, in the Ambunti subprovince, and at Terebu Bush, in the Wewak subprovince, in 1976-77. Another farm is planned in the Wewak area the following year.

#### Fish and fishmeal

Fishing is carried out in the rivers and allong the coast of the province.

There are 17 commercial fishermen at Wewak, and production last year was 120 tonnes. An ice-making machine will be installed at Wewak this year, and one smokehouse will be constructed. The aim is to raise production of fish in the Wewak area to 200 tonnes in 1976-77. Two courses per year will be conducted on net fishing, net mending, and fish processing techniques.

At Angoram, two smokehouse are operating, and one is newly completed. Two fish salting projects have been set up. This year five new fish smokehouse are planned, and two new village fish salting projects.

Department of Primary Industry staff will provide general net mending and extension services to the people.

The Sepik River is to be divided into four areas within which fish salting will be encouraged. A market for salted fish has been established now in highland areas.

Fishmeal is being produced at Pagwi in the

Maprik subprovince. Production was 1.1 tonne last year. The New Zealand government has shown interest in an aid project for fish processing at Pagwi.

There is little activity at present at Ambunti. In 1976-77 two or three smokehouses will be constructed, and the department will provide an outlet at Maprik for Ambunti people's smoked fish.

Fishermen on rivers and sea will be encouraged to form a co-operative in 1977-78.

There has been a lot of survey work done on fisheries in the province, but no definite propositions have been drawn up to date. A restriction to development is the shortage of suitable staff.

# Subsistence crops and vegetables for sale

The aim of this programme is to establish fresh food supplies to markets and to combat nutritional problems. Seed propogation plots have been established at Angoram, Ambunti, Maprik and Wewak.

Extension officers are encouraging people to introduce new vegetables to their diet, and are demonstrating methods of growing, rotation and harvesting.

The Fresh Food Market at Wewak buys fresh vegetables. In 1977-78 two local farmers in the Wewak area will be encouraged to go into commercial gardening, to supply the Wewak Fresh Food Market.

#### Rubber

Rubber is only grown in the Angoram subprovince at Inmanmeri and Gavien. There are 40 growers, with 35 ha. There are 8 ha bearing, 17 ha immature, and 10 ha new plantings.

In the coming year 5 ha will be introduced to Biwat, and 1 more hectare planted at Inmanmeri. Polyclonal budded materials will be used for village planting. The following year, 2½ ha will be introduced at Blackwater in the Amboin area.

The development of this programme depends on the interest of the people and attitude of the staff.

### Project management

New extension centres will be established at Ama, Gwanga, Bongos, Timbunke, Sowam and Porapora areas. Staff will be decentralized and put on these stations so that the community is serviced properly.