

MOROBE PROVINCE

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Morobe Province

The major part of the province is composed of rugged mountain ranges with peaks rising to 3 960 m above sea level. The Markham Valley almost splits the province in half; the Markham River flows into the Huon Gulf adjacent to Lae. The northern section is dominated by the high and rugged Saruwaged and Finisterre Ranges, and the southern section by the Kratke and Bowutu Ranges.

The structures, mineralization, soils etc. on the northern side of the Markham Valley are completely different from those on the southern side, making it evident that the Markham was originally a rift valley. Soil types vary widely from deep silt soils in parts of the Markham Valley to shallow limestone and granite-based soils in the mountain areas.

There is a wide variation in vegetation from open grassland through savannah to virgin rain-forest. Most of the economically arable land is in the Markham Valley and surrounding areas. Most of the hill country is used for subsistence agriculture on a shifting agriculture basis.

The rainfall of the province varies from 6 350 mm per year along parts of the south-east coast, to 1 270 mm in the drier parts of the Markham Valley. The seasons vary through the province, about half being subject to the south-east monsoons. The other half is influenced by the north-west monsoons.



The Markham Valley

The Highlands Highway commences at Lae, extends the length of the Markham Valley and proceeds into the Eastern Highlands Province. It also branches into the Ramu Valley to eventually link with Madang. A good road also extends up the Bulolo Valley to Wau and beyond. Quite a number of small feeder roads of varying standards branch out from these main roads.

Another main road is now being built through the North Lae to Bukaua area to eventually link up with Finschhafen.

The Morobe Province now has 34 commercial airfields and 7 restricted strips.

All outstations have radio communication with Lae. Lae is the centre for the nationwide subscriber trunk dialling telephone communications network.

Radio Morobe is based in Lae and gives a good coverage of the Province.

PEOPLE

The total province population is 249 667 which includes 5 700 expatriates.

There is no dominant language group in the province, but very many small ones.



*A primary school on the Slate Creek-Aseki road
in the Watut Valley*

The Lutheran Mission is the dominant religious group. The mission is widely involved in agricultural development through such organizations as Namasu, Lutheran Economic Service, Yangpela Didiman and others.

The standard of health and nutrition is generally high although malnutrition does occur. There are 200 aid posts and health centres and 6 hospitals, the major one being the Angau Memorial Hospital in Lae.

There are 54 700 children of primary school age in the province; 37% are at school. The province has 144 primary schools, 6 high schools (with 2 100 pupils) and five vocational centres (350 pupils). There is also a teachers' college, a technical college and the University of Technology at Lae.

Vocational centres in general have minimal involvement in agricultural training.

Land disputes are not a real problem, the demarcation committee having done an excellent job in this field.

ECONOMY

Arabica coffee is the main crop, with other major crops being copra, cocoa, peanuts and fresh foods.

There are large numbers of cattle and pigs in the province, and a successful broiler poultry industry.

Gold mining, once a major industry, has received a boost from current high prices and activity in the Wau-Bulolo area is much greater than for many years.

Softwood (hoop and klinkii pine) is being harvested at the rate of 26 million superfeet (61 355.5 cubic metres) per annum from the Wau-Bulolo area. Hardwood log production from the lowland forests is running at about 30 million superfeet (70 794.8 cubic metres) per annum.

The Papua New Guinea Development Bank has greatly aided agricultural development work in this province, especially in the cattle and poultry industries. Smallholder cattle loans now total K1 200 000.

There are 14 co-operatives operating with an annual turnover of K1 million.

The Department of Primary Industry has an agronomy research station and training school at Erap, another training school at 3-mile, Lae, and a poultry research centre near Lae.

AGRICULTURAL DEVELOPMENT PROGRAMME

COFFEE

All coffee in the province is Arabica. There are 4 407 000 bearing trees, and 305 000 immature trees. Production last year was 2 390 tonnes of green beans produced from smallholder planters, and 669 tonnes from plantations.



Coffee

In general the province is well covered with coffee trees. People have more trees than they can comfortably maintain.

In 1977-78 16 ha will be planted at Menyamya and 8 ha at Aseki. In 1978-79 24 ha will be planted at Menyamya and 16 ha at Aseki.

In 1979-80 a proposal will be submitted for the establishment of a factory at Lae for blending coffee for export.

COCOA

There are 110 000 cocoa trees bearing and 18 000 immature. Production last year was 226 tonnes including 125 tonnes from smallholders.

Prices are buoyant for cocoa and a high level of production is being maintained, particularly in the Finschhafen area.

In the Finschhafen area all production is channelled through the Akua Co-operative Society.

Between 1977 and 1981 8 ha of cocoa will be interplanted under coconuts each year.



Cocoa

COCONUTS

There are 645 000 bearing coconut trees, and 16 000 immature trees. New plantings are generally for subsistence or sale of fresh coconuts. Sales of fresh coconuts to the Highlands have increased tremendously.

The slump in the price for copra has reduced production. Four copra driers will be built at Siassi and Wasu.

Three local groups will be assisted to take over and manage expatriate-owned plantations.

In the next four years, 20 ha of new trees will be planted each year. It is hoped that high-yielding seed nuts can be obtained for planting in 1979-80, and thereafter.

CATTLE

There are 17 000 head of cattle on smallholder projects, and 43 000 on plantation holdings. The area developed for smallholder projects is 20 000 ha.

In 1978-79 40 new projects will be established in areas which have not yet been opened up, if road or sea transport is available.

A killing floor will be established at Garaina.

In 1979-80 a proposal will be submitted to the government for a tannery at Lae, to prepare hides for export, a canning plant at Lae to can meat and fish, and a meat meal plant at Lae to provide stock-feed for poultry and pigs.

If approved these plants will be established in 1980-81.



Cattle

PIGS

There are about 3 000 pigs on expatriate-owned farms and 700 on locally owned projects. There is also an abundance of pigs in villages kept for traditional purposes.

Last year, 2 522 pigs were slaughtered at the abattoir. Four per cent of the pigs were from local projects.

There are two commercial piggeries which are locally owned.

Feeding methods at village level will be improved to give maximum production from village pigs.

In 1978-79, if two trial weaner projects have been successful, two more projects will be established. These projects will aim at using locally produced feed.

Four more weaner projects will then be established in 1979-80 and six in 1980-81.

POULTRY

Egg production is still being handled by expatriates.

There are 68 locally-owned broiler projects. Each project produces 5 batches of chickens a year. Projects vary in size from 1 000 chickens to 5 000 chickens.

Up till now planned expansion has not been fully achieved due to shortage of day-old chickens. A new breeder flock and hatchery has now been established in the Lae area. Thirteen newly established projects will grow pullets for the breeder flock.

The number of chickens will be increased to 30 000 per week in 1977-78, and maintained at this number.

A meat-meal plant to produce feed is planned for Lae in 1980-81 (see Cattle).

WILDLIFE

There are no wildlife management areas in the province, and no wildlife farming projects. Extension staff help with the enforcement of wildlife protection laws.

A national butterfly farm has been planned for Garaina. A trial butterfly project may be established in 1979-80, and another in 1980-81.

SUBSISTENCE CROPS

Concern by the Food Action Group, which issued a report stating that 52% of the Morobe Province children were malnourished, has stimulated increased extension activity in the subsistence field.

DPI officers will work with health workers to ascertain areas where the malnutrition problem is most acute, and find out the reasons for this. New nutritious food crops will be introduced.

The effect on subsistence gardening of urbanization in the Lae area will be investigated. People in areas close to Lae will be encouraged to increase the size of their gardens and market excess produce.

In 1977-78 the department will investigate the need for a machinery hire service for food gardens in the Lae area, and an urban extension service will be introduced to encourage backyard food production in the Lae area.

If the survey reveals a need for a machinery hire service, and if this can be commercially profitable, private contractors will be encouraged to establish this service in 1978-79.

Expansion of subsistence gardening will continue to be encouraged to meet expanding needs.

FRESH FOODS FOR SALE

Fresh foods extension activities commenced in June 1975. Village production of vegetables has been estimated at 50 tonnes per annum valued at K10 000.

The Food Marketing Corporation has provided a buying service at the farm gate, and this has led to a great improvement in production of fresh foods for sale. Extension officers in the buying service exercise quantity and quality control.

A proposal for a fruit and vegetable processing and canning factory at Lae will be drawn up in 1979-80, and if feasible, the factory will be established. It will be able to produce such things as canned pineapple and cucumbers, and fruit juices, for local and export markets.

RICE

Plantings are confined to high rainfall areas. The Markham Valley has been found not suitable for commercial rice growing. Efforts to establish commercial production will be concentrated in the Finschhafen area.

In 1977-80, 50 ha of rice for sale will be planted each year in the Finschhafen area, and the commercial rice area will be increased to 100 ha in 1980-81.



Rice Nursery Finschhafen

PEANUTS

All sales are through the Atzera Rural Co-operative and other commercial outlets.

The area planted will be increased each year, to 800 ha in the Leron-Kaiapit area and 360 ha in the Erap-Chivasing area in 1980-81.

The Atzera society should be able to purchase and lease to farmers all machinery required, in 1977-78.

Peanut processing and packaging, including a peanut butter factory, will be established in 1979-80 near Kaiapit. Peanut products will be sold locally, and on overseas markets where possible, by 1980-81.



Wrapping roasted peanuts at Kaiapit

SORGHUM

Present production of 2 000 tonnes is confined to expatriate and company holdings in the Markham Valley.

Maize is preferred to sorghum as a grain crop for small-holders, as it does not need expensive machinery for planting, harvesting, etc.

Between 1977 and 1981 small-holders will be encouraged to increase production by 20% each year.



Growing sorghum at a DPI station near Kaiapit in the Markham Valley

CARDAMOM

Production commenced recently at Boana and Pindiu. Plantings at Kabwum are coming into production. Local people in these areas are showing interest in cardamom as an alternative crop to coffee.

CHILLIES

Production is mainly confined to Menyamya and Garaina areas. Chilli quality standard has been maintained despite some problems in marketing. Further expansion will be allowed to take its course depending on the interest of the people.

SOYABEAN

Research trials are being carried out on soyabeans by the Agricultural Research Centre at Bubia (See *Harvest* 4, 2 p. 60).

There are no figures for production and area planted by expatriate farmers.

Commercial production by smallholders has not yet begun. Soyabeans are used as a subsistence crop, by a minority of the people. Extension for subsistence purposes will continue at the same level. Commercial plantings are not planned until the results of further research are known.

CORN

Maize has become a popular crop with smallholders. Individual farmers find they can handle reasonably large areas and achieve commercial production.

Insect and disease problems, including locust plagues, may reduce productivity of maize crops.

In 1978-79 100 ha will be planted at Kaiapit-Mutsing and 60 ha at Erap-Chivasing; 120 ha and 80 ha will be planted in 1979-80, and 160 ha and 100 ha in 1980-81.

TOBACCO

There is no real commercial production at present. Quite a large area is planted for local trade along the Sialum to Sio coast and to a lesser extent in Erap highlands. The distance of these areas from market does not warrant commercial planting.

W.D. & H.O. Wills (PNG) Ltd have established an extension service based at Mutsing to help people produce tobacco commercially in the upper Markham Valley.

FISHING

Approximately 1 tonne of fish is sold in markets in Lae per day.

Ice-making machines have been established at Lae, Morobe and Finschhafen. It is hoped that a series of ice-making machines will be established at points along the coast. These will supply ice to fishermen who will be supplied with ice boxes.

More staff are required for fisheries extension. It is expected that staff will be obtained and trained in 1977-78, and fish production will then rise in 1978-79, with sales in Lae of a minimum of 5 tonnes per week. New storage sheds will be built at the fisheries depot at Voco Point.

It is planned to increase fishing to satisfy the demand for fish in Lae by 1980-81.

In 1979-80, in anticipation of a surplus after 1980-81, the department will survey the demand for fish in the Highlands provinces, and the possibility of supplying at least part of this demand from Lae.

A canning plant will be planned in 1979-80, and may be established in 1980-81. A meat meal plant planned for 1980-81 may also produce fish meal.



Weighing recently caught fish at Lae Wharf. Fish are sold to anyone who wishes to buy

Photographs: Office of Information