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WILDLIFE MANAGEMENT AREAS IN P.N.G.

1. GARU



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1. DESCRIPTION

A. Definition of Area Involved.

The Government land at Garu in West New Britain involves an area of 9,416 hectares. It is situated at the base of the Willuamez Peninsula between the Kulu River in the south and Garu Village in the north between Reibeck Bay in the west and Mts Welcker and Krummel in the east.

(See Map 1).

B. Topography

The topography of the Garu area consists of a coastal plateau of volcanic origin having a slight decline to the West, forming a broad coastal plain. The eastern boundary is dissected by deep gullies which originate in the volcanic cone complex - Mt Welcker (1200 M) and Mt Krummel (980 M) - which runs due north-south. Associated thermal areas are found on the slopes of the mountains. Subsidiary vents and hot springs occur spasmodically throughout the lowland forest (Lindgren & Miniotas, 1972).

C. Vegetation

1. Climax Communities.

(a) Lowland Rain Forest.

This formation is the most important and extensive one extending from the coast to the foothills of Mt Welcker and Mt Krummel

(b) Freshwater Swamp Forest.

Swamp forest is found along the Kulu River extending northwards and intergrading with the lowland rainforest on higher ground.

Tall Sak-sak or Sago Palm Metroxylon rumphii and Nipa Palm Nipa fruticans are found in this formation.

(c) Mangrove Forest.

This is a minor formation and is found along the estuaries of the Kulu and Debavu Rivers. It is characterised by Rhizophora mucronata, R. conjugata, Bruguiera parviflora and B. gymnorrhiza.

2. Seral Communities.

Secondary Forest and Regrowth.

Secondary forest and grasslands both occur in the areas previously used by the Garu Villagers for gardening and along the old logging roads.

(See Map 2).

D. Wildlife Resources.

1. Wildfowl.

The species of wildfowl found in this area is Megapodius freycinet. In most areas wildfowl nest in large mounds of earth and leaves,

the eggs being hatched by the heat generated by the decaying vegetable matter or by heat from the sun. However, along the volcanic line of islands from New Britain to the Solomon Islands the birds lay their eggs in holes which they dig in the warm sands associated with the volcanoes. During the dry season from April to November, birds from a large area surrounding the egg-grounds fly in to lay their eggs. (Downes 1970).

Of the four known wildfowl egg-grounds on New Britain, the one at Garu has the added significance that it is the only egg-ground found on government owned land. As such it can be managed and retained as a national asset.

The value of the wildfowl eggs as a protein source for the villagers is unrivalled in the Garu Area. Up to 15,000 eggs have been harvested annually (Downes 1972).

2. Turtles.

There are four species of marine turtles found in the waters of Reibeck Bay:

Hawksbill Turtle	<u>Eretmochelys imbricata</u>
Green Turtle	<u>Chelonia mydas</u>
Leathery Turtle	<u>Dermochelys coriacea</u>
Flatback Turtle	<u>Chelonia depressa</u>

The Leathery Turtle and the Flatback live on the beaches between Kandoka Village, Garu Village and the mouth of the Kulu River. The Leathery Turtle breeds from December to July and the Flatback breeds from February to April. (K. Kisokau 1973).

Turtles play an important role in the life of the Garu Village people:

- (a) Nutritional: - the turtles are hunted for their eggs and meat which provide a source of high protein food.
- (b) Traditional: - turtles are used as gifts in traditional exchanges.
- (c) Economic: - excess of turtle meat and eggs are sold at Talasea Market.

There are no traditional rules protecting the turtle breeding sites. Because of the significance of the turtles in the people's lives an effort could be made to protect the natural populations against over-exploitation.

3. Wildpigs.

Wildpigs are relatively abundant and are also an important protein source. At least 70-80 pigs are harvested annually by Garu Village which has sole wildpig rights over this land. (Liem 1973).

4. Dugong

The shallow waters of Reibeck Bay form an important feeding area for dugong along the north coast of New Britain.

E. People

The only village situated within the boundaries of the proposed Garu Wildlife Management Area is Garu. It has a population of approximately 200 people. The Garu and Bere clans of Garu Village have sole egg-rights over the wildfowl egg-grounds.

2. DEVELOPMENT PROPOSALS.

A. Timber.

The Government land at Garu forms part of a Timber Permit No 223 issued by the Forests Department in 1967.

From 1967-1969 logging activities were concentrated along a coastal strip. During this time part of the Magadarili egg-grounds at Garu was selectively logged. Logging operations have now ceased due to disputes. To date out of 12,735 hectares of merchantable timber, approximately 1101 hectares have been logged. A renewal of the permit is being considered.

(See Map 2).

B. Land Capability

The Government land at Garu has been assessed as follows:

60% suitable for agriculture
20% swamp
13% rugged terrain
2% thermal areas

The area is under consideration for Oil Palm planting under the Hoskins Oil Palm Development Scheme. Surveys into the area were concerned only with developmental potential with no reference to the wildfowl resource.

3. PRESERVATION OF THE GARU WILDFOWL EGG GROUNDS

A. Garu Wildlife Committee

Before the Government purchased the Garu land in 1966, the people of Garu village owned the land and exercised egg rights with village restrictions on egg taking and protection of adult birds near the burrows. These traditional conservation practices were in the form of laws laid down by the village council. Since the land has been bought, these customary laws have lapsed and the people have been gathering eggs at full capacity.

A necessary prelude to the protection and development of the egg-ground under any system of wildlife protection and management is the restoration of traditional control over these egg-grounds.

It is therefore essential that a "Garu Wildlife Committee" be set up with the following aims:

- a) to limit egg taking to a reasonable harvest.
- b) to protect adult birds on the egg-grounds.
- c) to prevent disturbance of the egg-grounds.
- d) to utilize the interest of the people in protecting the egg-grounds for the future.

An interim Committee has set rules such as the following:

- a) no birds (adults and chicks) to be killed at the egg-grounds.
- b) only 10 egg-collecting permits to be issued at any one time.
- c) limit of 2 days digging/week on set days only.
- d) limit of 30 eggs/person/week.
- e) incubated eggs must be returned to the ground.
- f) 2 out of every 12 eggs collected to be donated to the "Wildfowl Fund" to finance enforcement work at the egg-grounds.

B. Prevention of Habitat Destruction

To protect the wildfowl populations it is necessary to preserve the habitat in which they live. Therefore it is necessary to ensure that threats to their habitat such as logging and clearing for oil palm development are prevented.

4. RECOMMENDATIONS.

1. That the area be declared a Wildlife Management Area to:
 - (a) protect the populations of wildfowl found in the area from over-exploitation and their habitat from destruction.
 - (b) protect all other wildlife in the area especially those which are important in the traditional sense and for those whose conservation is important in the scientific sense e.g. marine turtles and dugong.
2. That the Wildlife Committee be formalised and their rules made law under the Fauna (Protection and Control) Act.

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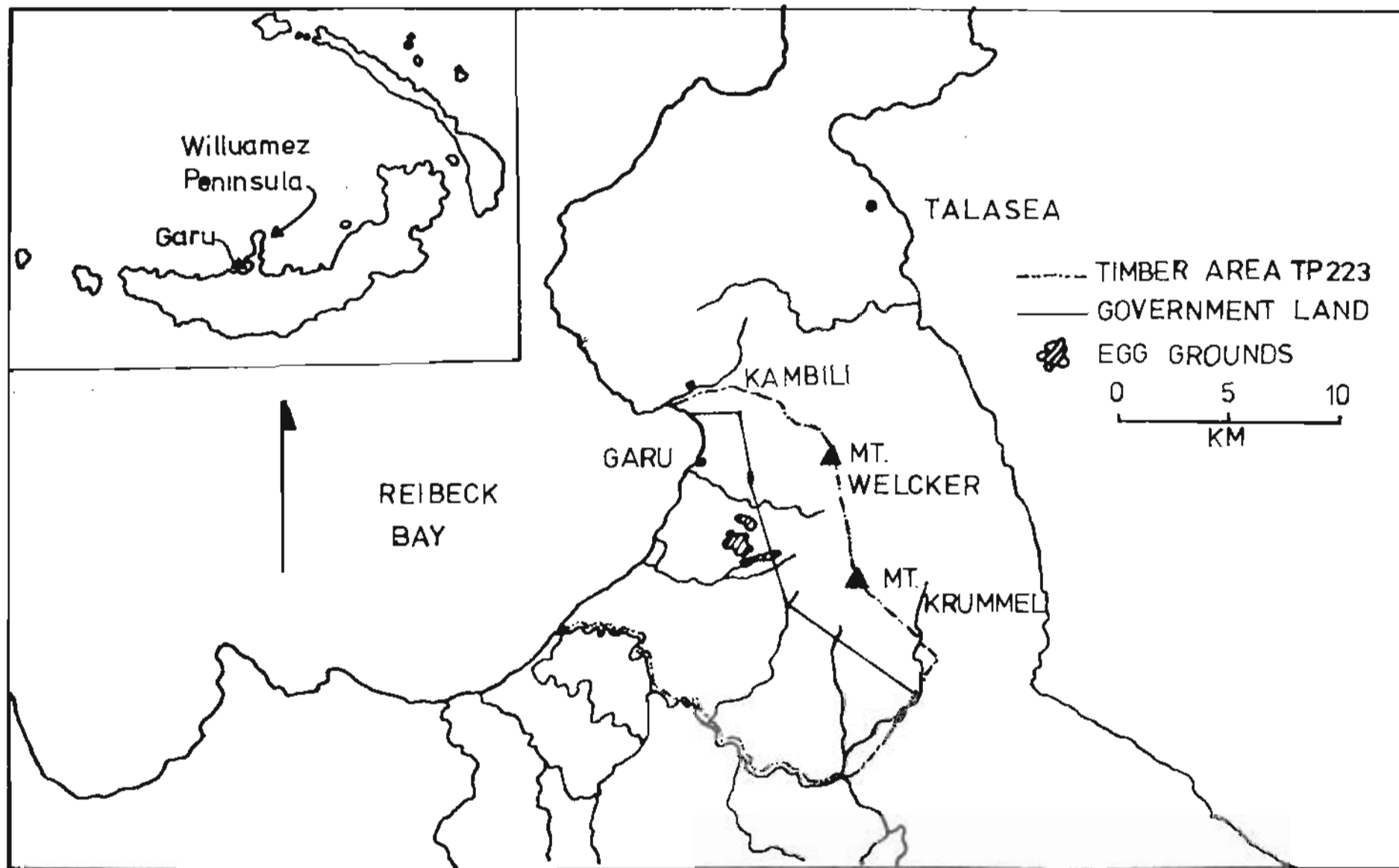
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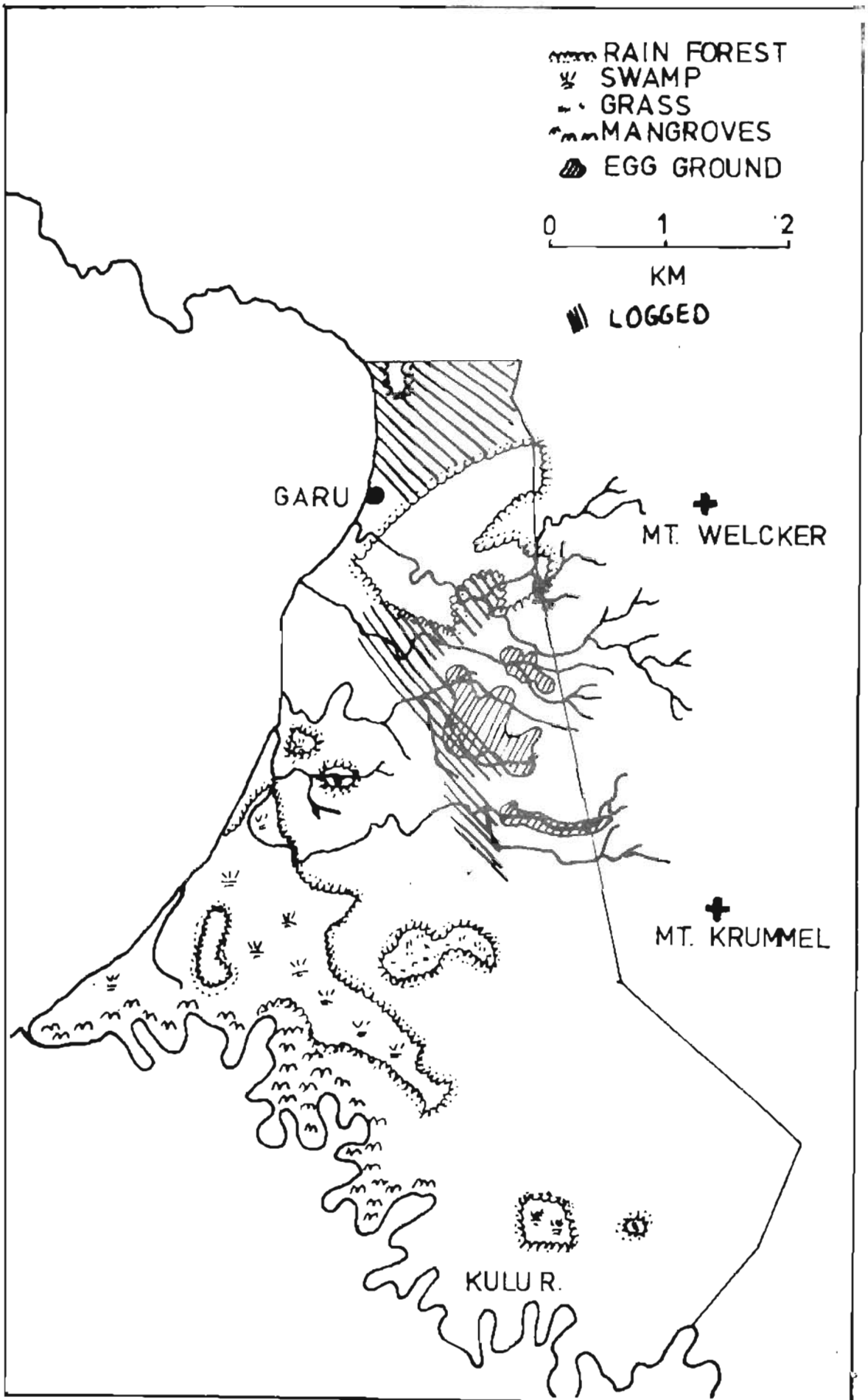
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MAP 1 GARU LAND W.N.B.



MAP 2
VEGETATION