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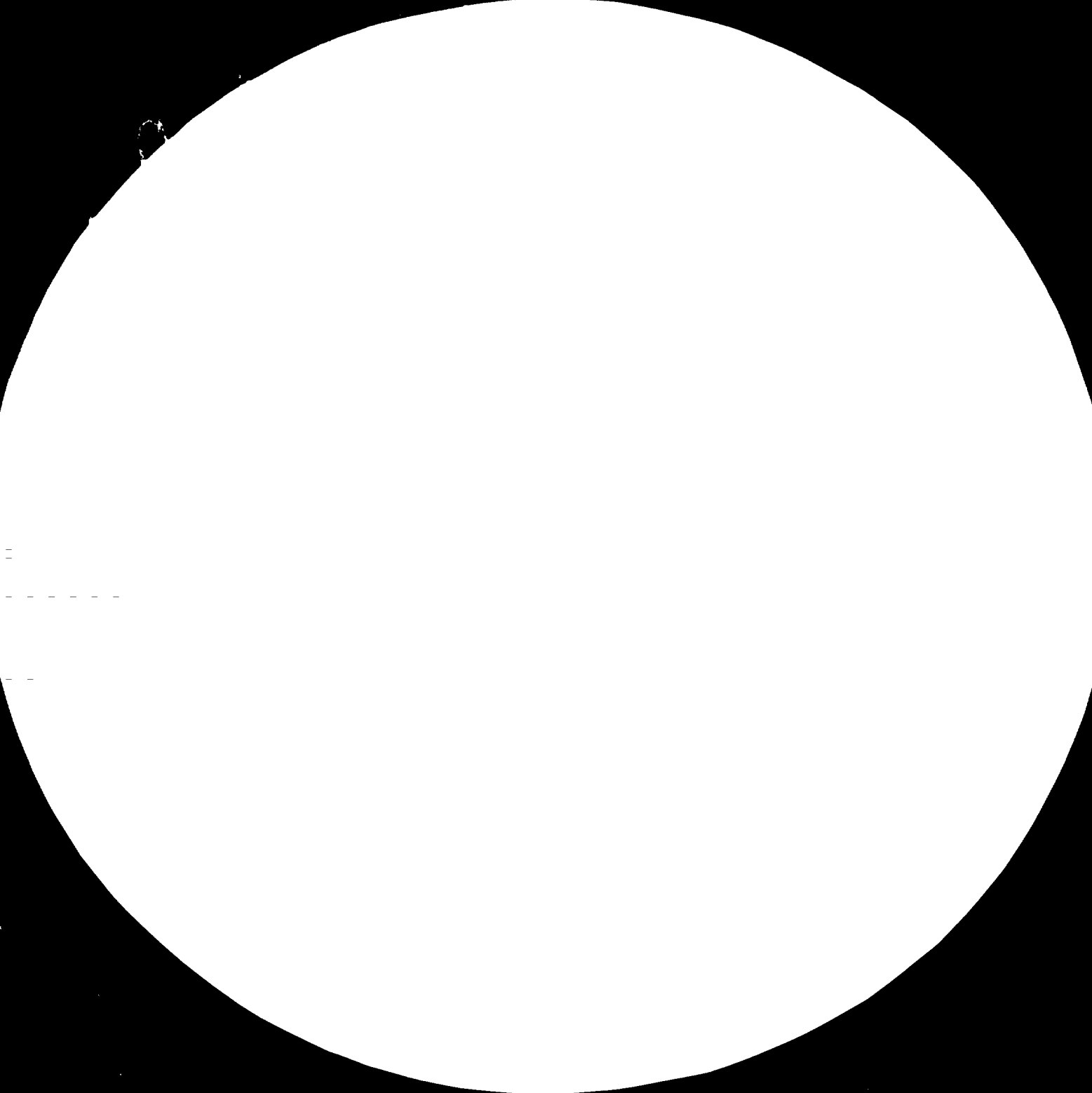
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31.7.1980

FEASIBILITY STUDY FOR DEVELOPMENT OF AN INDUSTRIAL
ESTATES PROGRAMME IN PAPUA NEW GUINEA.

PART ONE

PROJECT FINDINGS AND RECOMMENDATIONS

Final Report Prepared for the Government of Papua
New Guinea

by

V. CUMRASAMY

Industrial Estates Consultant of the
United Nations Industrial Development Organisation

Acting as Executing Agency for
United Nations Development Programme

(SI/PNG/79/805/11-01/31.3.E.)

This Report has not been cleared with the
United Nations Industrial Development
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ACKNOWLEDGEMENTS

During the course of the assignment, the consultant met a large number of Government officials, and representatives of the private sector, particularly industrialists in Port Moresby. The discussions and information gained were very useful and the consultant expresses his utmost appreciation and many thanks to all of them.

What has been possible by way of presenting an industrial estates implementation programme was due to the co-operation given by Mr. Tony Reid, Manager, Operations Department of the Papua New Guinea Development Bank; Mr. Brian Aldrich, Officer-in-Charge, Urban Projects, Department of Lands, Surveys and Environment; and Mr. Tom Easton, Town Planner, Department of Urban Development. The consultant appreciates very much their assistance and co-operation.

The consultant places on record with much gratitude the firm offers of participation by Mr. Raspotnik, Manager, Hornibrook Constructions Pty Ltd; Mr. M.C. Bendall, Managing Director, W.R. Carpenter (PNG) Ltd.; and several other representatives of the private sector who showed much interest and were willing to participate in the estate programme.

The consultant worked closely with Mr. Warren Barlett, Managing Director of the Western Highlands Development Corporation Ltd., on the proposed industrial estates for Mt. Hagen which indicates the scope for setting up estates on a decentralised basis.

In the preparation of the Directory on allocated industrial land, Mr. Colin Huddy, Labour Statistician, Department of Labour and Industry gave of his own time to the consultant and assisted with his staff in the Labour Statistics Branch.

Mr. Peter Bonny, Research Officer of the Industrial Planning Branch of the Industrial Development Division worked with the consultant as his counterpart officer. The interest shown by him in the study was very useful to the consultant and for all the time devoted and the assistance by him, the consultant expressed warm appreciation.

Throughout the assignment, the consultant worked closely with Mr. Edward Owen, Officer-in-Charge of the Industrial Planning Branch of the Industrial Development Division. Discussions with Mr. Owen were very informative and stimulating. The consultant expressed his gratitude to him for all the information he supplied and views expressed.

The completion of this Report within the project period was possible in a very large measure due to the untiring efforts of Mr. Gonzales Reynaldo, Project Officer (Industrial Services) of the Industrial Development Division. Mr. Reynaldo in addition elucidated matters pertaining to policy, organisational set up, etc. in Papua New Guinea. For all the assistance that was rendered by Mr. Reynaldo, the consultant expresses warm appreciation and gratitude.

To all the other members of the staff of the Industrial Development Division, the consultant thanks them for the courtesy extended to him during the study. Mr. David Macdonald, Officer-in-Charge, Industrial Projects Branch and Mr. Elias Kedek provided useful information and devoted time to discuss and present views on the study.

Finally, to Miss Nora Solien and Miss Mary Lohia the consultant expresses many thanks for the time devoted to provide secretarial services during the assignment.

T A B L E C O N T E N T S

		Page/s
1.0	SUMMARY	1 - 5
2.0	INTRODUCTION	6 - 14
3.0	FINDINGS	15 - 34
4.0	RECOMMENDATIONS	35 - 44
	ANNEX & APPENDICES	

1.0 SUMMARY

- 1.1 Underdeveloped entrepreneurship and inadequate capacity to identify viable industrial projects are major constraints at the level of the indigenous population for the growth of industry in Papua New Guinea. The basic approach of the study is aimed towards an endeavour to promote and develop entrepreneurship in this sector.
- 1.2 Development of infrastructure for industry and decentralisation of economic activity are identified as related areas which require associated priority attention. A strategy appropriate to this background is recognised as essential for achievement of results.
- 1.3 An Industrial Estate is generally defined as "a tract of land developed and subdivided into plots according to a comprehensive plan with provision for roads, transport and public utilities with or without built-up (advanced) factories, sometimes with common facilities and sometimes without them, for the use of a community of industrialists". The Flexibility of adaptation is the special feature of this concept. Industrial estates have been adopted as a flexible instrument in many countries to promote and develop industrialisation. The concept is identified as a strategy applicable to Papua New Guinea. The emphasis is on its role as a means to stimulate and promote national entrepreneurship, and the potential to contribute towards achievement of national objectives.

- 1.4 The more important aspects of the Industrial Estates programme suggested in this report, are as follows:-
- 1.4.1 Industrial Estates is presented as a comprehensive activity which will steer selected national entrepreneurs through all stages of establishment and operation.
- 1.4.2 The Papua New Guinea Development Bank and several industrialists in the large industry sector have accepted the concept of the industrial estate and agreed to co-operate in the promotion of nationally owned and operated feeder industries.
- 1.4.3 One such estate is recommended for location in the Gerehu Industrial Area in the National Capital District as a Pilot Project to concentrate efforts and for maximum "demonstration effect". Suitable land and immediate services are available in the area.
- 1.4.4 The Papua New Guinea Development Bank is identified as suited to undertake implementation of the Pilot Project. This institution is well oriented towards implementation of viable development programmes. Feasibility of the estate being undertaken as a Bank Project has been agreed to in principle. In recognition of the national importance of the project, the Bank has made a tentative request to the Government for reservation of suitable land at Gerehu in Port Moresby.

- 1.4.5 The national benefits which would be realised through the success of the Pilot Project are emphasised. It is suggested that implementation may be extended to the national level through a programme of inter-relationship between large and small industry under the sponsorship and management of the Papua New Guinea Development Bank. It is recommended that the Government ensures that co-operation is extended by its Departments and Agencies to the Development Bank on this project.
- 1.4.6 Provision of appropriate supporting services and incentives co-ordinated by a suitable agency is recognised as a prerequisite for achievement of objectives of the Pilot Project.
- 1.4.7 Small scale industry functioning as ancilliary units/ sub contractors to large establishments is identified as an area with potential and prospects for success.
- 1.4.8 Definitions of size based on investment or employment limits are not applicable at this stage. Introduction and promotion of a modernized sector of industry on a scale permissible as "Small" in the national context is the real need.
- 1.4.9 Goals of employment and productivity, consistent with the viability of the project and creation of environment in which new enterprises can operate and develop as viable projects is emphasised.

- 1.5 A proposal of the Western Highlands Development Corporation to set up an industrial estate at Mt. Hagen is presented. This project among other objectives promotes the decentralisation of economic activity. Support of the National Government is recommended for the project. Such action would demonstrate the principle of joint responsibility of National and Provincial Governments for overall development of the country.
- 1.6 Establishment of an estate at Lae in the Morobe Province, is envisaged as an early followup.
- 1.7 Shortage of serviced industrial land is reported. Comprehensive data on industrial land is not maintained. A Directory on Industrial Land has been compiled as Part II of this report. Further work on this Directory to provide information to Government Planners as well as potential investors is recommended.
- 1.8 Knowledge of the national population on the scope and potential of modern industry is lacking at present. It needs to be stepped up very much. Some "Feasibility Studies" undertaken by Government Departments are delayed or remain inconclusive for too long a period. Standard studies such as Fact Sheets, model schemes or Industry Profiles will stimulate interest. Small industries could be set up on the basis of such studies. Effective implementation by government, as an important function of its responsibility for promotion of industries is recommended.

1.9 Provincial Governments need to know their resources and potential for developing industries. Through preoccupation with initial tasks and problems of setting up provincial administration, this aspect has not received sufficient consideration. Priority attention is recommended for collection of data and study of potentials as a regular and continuing activity of the provincial planners.

2.0 INTRODUCTION

Reference to the Nationally accepted 'Eight Aims' of Papua New Guinea which constitute the basic approach of the country towards its development objectives, and the guidelines set out by U.N.I.D.O. on possible achievements by an Industrial Estate Programme are given below, as an overall introduction to the scope of this study.

2.1 Eight Aims of Papua New Guinea

"A rapid increase in the proportion of the economy under the control of Papua New Guinean individuals and groups and in the proportion of personal and property income that goes to Papua New Guineans.

More equal distribution of economic benefits, including movements towards equalisation of services among different areas of the country.

Decentralisation of economic activity, planning and government spending, with emphasis on agricultural development, village industry, better internal trade, and more spending channelled to local and area bodies.

An emphasis on small scale artisan, service and business activity, relying where possible on typically Papua New Guinean forms of business activity.

A more self-reliant economy, less dependent for its needs on imported goods and services and better able to meet the needs of its people through local production.

An increasing capacity for meeting government spending needs from locally raised revenue.

A rapid increase in the equal and active participation of women in all forms of economic and social activity.

Government control and involvement in those sectors of the economy where control is necessary to achieve desired kind of development."

2.2 UNIDO's Guidelines on Industrial Estate Programme

The United Nations Industrial Development Organisation's guidelines of possible achievements by an industrial estate programme adequately supported and co-ordinated with other development programmes are as follows :-

"Contributions to economic and industrial development
Industrial Estates serve :-

- a. To promote more rapid industrialization of the country;
- b. To increase national and local employment;
- c. To achieve a more balanced regional distribution of employment and production, and consequently more balanced regional growth;

- d. To attract private investment, both national and foreign;
- e. To promote the development of small national industries;
- f. To bring industries and industrial employment to rural areas;
- g. To induce structural changes in production and employment, especially diversification;
- h. To encourage more effective use of resources through the development of large-scale industrial complexes, including diversified industries of all sizes, centered on major projects such as ports, airports, railroad and highway junctions, power plants, oil refineries, steel mills and chemical plants;
- i. To improve product quality and increase productivity;
- j. To train labour and increase its productivity;
- k. To achieve economies in investment in public infrastructure;
- l. To reduce cost of capital investment to the industrialist;
- m. To eliminate delays for the industrialist in obtaining a suitable site, utilities and buildings.

Contributions to urban and regional planning as part of urban and regional Industrial Estates serve:

- a. To promote decentralization by preventing or checking excessive concentration of growth of single urban areas, especially large metropolitan areas:

- b. To increase the economic, productive and employment base of urban communities;
- c. To regulate the inflow of industry and to guide its orderly location within the metropolitan area;
- d. To strengthen the economic base of small and medium-sized towns;
- e. To provide an industrial base for new towns;
- f. To preserve the most suitable urban land for industrial use;
- g. To provide a more healthy and attractive urban environment;
- h. To minimize distance to work and to reduce load on the transport system;
- i. To maximize efficient land usage;
- j. To integrate urban marginal population into the productive industrial system;
- k. To reduce cost of land and development;
- l. To provide sites to relocate industries displaced by urban renewal projects;
- m. To protect residential and other non-industrial areas from nuisances created by industry;
- n. To achieve economies in the provision of urban services utilities."

2.3 PROJECT BACKGROUND

The United Nations Industrial Development Organisation has promoted the establishment of Industrial Estates in developing countries as one of the tools for an integrated programme of small industry development,

and a number of Industrial Estates have been established in developing countries during the past ten to fifteen years. Further, the activities which have been carried out by UNIDO as a whole have emphasised the strengthening of indigenous capabilities of the developing countries.

- 2.3.1 Studies of the experience of application and evaluation of industrial estates in several countries lend support to the view that the industrial estate concept is now recognised as a flexible instrument which could be adopted appropriately to promote and develop industrialisation in a developing country.
- 2.3.2 Interest in the development of Industrial Estates has been eviced in PNG over the past few years. Within the Department of Labour and Industry, arguments in favour and against the idea have led to lengthy exchange of memos. While the concept in broad terms fitted into the national objectives of the country, it did not receive priority ranking in its implementation programmes.

2.3.3 Against this background, a Small Industry Expert Team from India sponsored by UNIDO made a study on "Potentialities and Programmes for development of Small Industries in Papua New Guinea", in 1974. The Teams' recommendations included the establishment of sixteen industrial estates to be provided with 680 factory sheds at an estimated cost of twenty million dollars (\$20,000,000) excluding cost of land. Government did not set up any estates. The interest in the concept however continued and the Government through the Department of Labour and Industry made a request to UNIDO in 1979 for consultancy assistance to assess the role and potential of industrial estates for Papua New Guinea. This report is the result of the Consultancy assigned by UNIDO for the period February - July 1980.

2.4 SUMMARY OUTLINE OF OFFICIAL ARRANGEMENTS

Duty Station - Port Moresby

Date of Reporting - 12th February 1980

Date of Completion - 2nd August 1980

Co-operating Government

Agency - Industrial Development Division
of the Department of Labour &
Industry under the Ministry of
Commerce and Industry.

Reporting Contacts - UNDP Port Moresby

- Mr. T. Unwin
Resident Representative
- Mr. K. McGrath
Deputy Resident Representative
- Mr. A.H. Qureshi
Assistant Resident Representative

Reporting Contacts - Cooperating Government
Agency

- Mr. Edward C. Owen
O.I.C., Industrial Planning Branch
Industrial Development Division
- Mr. Gonzales Reynaldo
Projects Officer (Industrial Services)
Industrial Planning Branch

Counterpart Officer

- Mr. Peter Bonny
Research Officer, Industrial Planning Branch

Adequate arrangements were made and much assistance was rendered by the co-operating Government Agency in matters relating to office accommodation, transport, counterpart and secretarial assistance. Guidance and assistance were readily offered and rendered by the United Nations Development Programme, 'Representatives' and their staff.

2.5 Objectives of the Report

2.5.1. Promotion and development of indigenous entrepreneurship

in Papua New Guinea for industrialisation of the country, is the major objective of this study. Recognition of the existing deficiencies in this regard and supportive measures to help overcome this handicap are an integral part of this objective.

2.5.2 Development of a suitable programme to be implemented by an existing National Agency. The Industrial Estate concept is identified as an appropriate instrument by which the objective could be achieved.

The setting up of one Industrial Estate in the National Capital District as a Pilot Project, for "Demonstration effect" to be implemented by the Papua New Guinea Development Bank, is envisaged as an early move.

2.5.3 Recognising the role of Small Scale Industries and their suitability for location in the proposed estate.

2.5.4 Enlisting the participation of large industries to promote small industries as feeder units.

2.5.5 Setting up an information system on essential data such as availability of industrial land, its uses, infrastructure facilities etc - for ready reference by Government and prospective investors. This is an urgent need in the context of shortage of serviced industrial land for industry.

A Directory of allocated industrial land has been prepared and is summarised as Part II of this report.

2.5.6 Recognising the importance of dissemination of information to the public on the scope for development of small scale industries through standardised studies, such as Fact Sheets, Industry Profiles or Model Schemes Communication to the public in this regard is virtually non-existent.

2.5.7 Speeding up procedures for allocation of land, providing appropriate guarantees and other supportive means to Provincial Government or their agencies as a means of developing an Industrial Estates Programme as a tool for the integrated development of Small Scale industries on a decentralised basis.

STRUCTURE OF THE REPORT

2.6 The report is presented in two parts. Project findings and Recommendations are contained in Part I. The Second Part is a Directory of allocated industrial land throughout the country. Over two thousand five hundred allocations made up to July 1980 have been covered in this work and information on section, allotment numbers, occupancy and activity is presented. Physical verification of occupancy was not possible due to the large number of allotments covered. Followup work that is required has been indicated and recommended in order to provide to the country a much needed information system on industrial land.

3.0 FINDINGS

These are grouped in relationship to:-

- a. the main recommendation
- b. related recommendations.

3.1 IN RELATION TO THE MAIN RECOMMENDATION

Lack of entrepreneurship among the indigenous population and the need to stimulate and accelerate its development is the basic issue that has come up in this study. In this regard the following considerations are essential. The manner in which PNG has industrialised highlights the position. The existence of a well organised foreign sector with high technical and managerial skills and entrepreneurship among the national population - an almost non-existent indigenous sector - is the picture. Industrialisation of the country in the desired direction of promoting indigenous entrepreneurship has to be supported. It will not take place on its own. In this regard therefore the following considerations are essentials:-

- 3.1.1 An entrepreneurial career essentially comprises bringing together personal material and non material resources in new and profitable combinations. This involves risks and requires a readiness on the part of the entrepreneur to experiment with relationships and various strategies. Often he is faced with multitudes of problems which demand decision making. Thus, capacity to identify,

plan, establish and operate an industrial enterprise is the very foundation of industrial development.

- 3.1.2 Taking into account social and cultural parameters, any limitation of the indigenous population of Papua New Guinea in regard to factors such as organisational capacity, attitudes towards taking risks, innovative and exploratory tendencies, machinery skills, attitudes towards regularity and responsibility - are viewed against the unlimited potential of the human race to learn new concepts, acquire new skills and undergo change in attitude.
- 3.1.3 The rate of these changes are governed by previous exposures to similar situations and to a population that is not familiar with the concept of industrialisation, the need for appropriate supportive assistance becomes all the more relevant and indispensable.
- 3.1.4 The Industrial Estate concept is a logical extension of the industrial area. Both are forms of industrial clustering. The area offers only improved sites. The estate goes beyond the provision of serviced industrial land and offers additional incentives such as advance factory building, common facilities and services, continuing management, financial assistance and other support. This influence will be considerably stronger than the provision of industrial land alone. In Papua New Guinea, a system of zoning is adapted and the scheme of allocation of serviced industrial land is already in existence.

- 3.1.5 A system of concentration of industrial areas is adapted in PNG at present. Small industrial estates could be located on the same tract of land. This will enable achievement of economies in development and buildings cost, flexibility in land use and facilitates urban planning. The industrial estate would group together standardised factories, common services and facilities. In practice therefore the physical identity of the area and the estate will be maintained.
- 3.1.6 Location of small industries in the immediate neighbourhood of large townships would ensure complementary relationships in particular subcontracting between large and small industries. Such location would also facilitate a rational distribution between industrial and residential land within the framework of urban development plans. The Land Act of PNG provides for concessions to be made for the setting up of industries which could provide for a closer integration between the two land uses of industry and residence. In the context of the limited availability of serviced land in Papua New Guinea this approach has much significance. The concessions made recently to a large industry, New Guinea Industries, for location at the Gerehu industrial area in the National Capital District serves to locate employment opportunities in close proximity to place of residence. The project under reference is to provide employment for two hundred persons from the area and the concessions included among others exemption from advertisement, waiver of premium sum and a special residence in the area.

- 3.1.7 Assistance to meet inherent handicaps and weakness specially in developing countries on account of factors such as inadequacy and technical and managerial skills difficulties in marketing and financing are easy to provide and implement in a centralised location as an estate.
- 3.1.8 Provision of cottage level technical service Workshop facilities for small enterprises who cannot afford independent installation of equipment, e.g. heat treatment for products and patterns, obtaining quality design and drawings of the facilities which an estate could provide.
- 3.1.9 Development of machinery and subcontracting activities is identified as an area with potential and prospects for success. Identification of this area is based on the existence of a well developed large industry sector and the inter-relationship that could be established between large and small scale industries - ensuring a national perspective.
- 3.1.10 Definition of size scale was not necessary at the present stage of development. A scale permissible as small in the industrial context could be adopted in relation to particular situations/activities. Development of Small and medium enterprises is seen as the direction and scale of activity to be pursued. The characteristic features of Small industries lend support to this view. These conditions

- Small Scale Industries play a key role in the Industrialisation of many developing countries.
 - Compared to large industry, small industries require a relatively smaller market and shorter gestation period.
 - Small Scale Industries have a comparatively higher labour/capital ratio, and relatively lower investment in absolute terms.
 - Small Scale Industries promote a diffused pattern of ownership & location and stimulate the growth of entrepreneurship.
- 3.1.11 - The Industrial Estate is an effective means of which development of infrastructure for industry could be speeded up. Decentralisation of economic activity is another important feature of national development which the industrial estate could assist to achieve.
- 3.1.12 - In the context of the underdeveloped entrepreneurship and inadequate capacity of identifying viable industrial projects, provision of supporting services and effective co-ordination by a suitable agency is a prerequisite for achievement of the objective.

- 3.2 The Development Bank of Papua New Guinea is oriented towards promotion of indigenous enterprises. The Bank has agreed to co-operate in this programme. The Consultant initiated discussions between the Bank and the Department of Lands, Surveys and Environment, and the Bank has applied for tentative reservation of land at the Gerehu Industrial area.
- 3.2.1 PNG Development Bank has with it funds of the Asian Development Bank specially meant for small scale industry development. The PNG Development Bank with its own resources and the A.D.B. funds is in a position to finance the project. This would relieve the Government of the direct financing.
- 3.2.2 The Consultant also discussed the project with existing large scale industrialists. Both the Bank and the industrialists have agreed to co-operate in the national venture of establishing an industrial estate as a Pilot Project in the Gerehu Industrial area. This estate will serve as a demonstration effect.
- 3.3 Large industries are capable of making location decisions on their own. They have the resources and expertise to acquire and develop the site chosen by them. The attention required to be paid to large industries in this regard would be allocation of adequate land or sites in locations that are suitable both from the industry and social point of view.

Industrial areas or zones would serve this purpose. The recent allocation of land to a large scale Steel Fabricating Plant in the Gerehu Industrial Area is an example of the recognition and support given by Government for the development of large industry in locations beneficial to both industry and the community. Further, large scale industries have the capacity or access to facilities and resources to undertake feasibility studies and meet technical and other management requirements. They do not require assistance or incentive in the form of industrial estates for this purposes.

- 3.4 Foreign investors who seek to invest in P.N.G. in response to the invitation by Government through incentives offered, by the same argument applicable for large industries, would require allocations of adequate land or sites in suitable locations. They would be coming into the country with their own resources and the skills.

Decentralisation of manufacturing operations and creation of cells which could contribute identifiable components or assemblies which could be put together in a central location is a trend that is fast developing. What is important and beneficial from the National point of view is to develop an indigenous sector, the existence of which would be an added attraction to foreign investment. The case for creation of Export Promotion Zones or Industrial Estates for foreign investors is inapplicable in the present stage of development of the country.

3.5 In relation to other Recommendations

Only about 3% of the land area of Papua New Guinea is owned by Government. Much of this is within the Urban Areas throughout the country. Addition to this supply could take place only by Government acquiring ownership of traditional land. Mandatory conversion of free hold or traditional land is undertaken by Government with much care and caution. Areas within the Town Boundaries are zoned for different uses by the Town Planning Division of the Department of Urban Development. The Department of Lands is responsible for advertisement and allocation of lands recommended by the Town Planners.

3.6 Leases granted by Government within the town boundaries are for specified purposes. These are:- Light Industrial: Heavy Industrial: Commercial: Residential: Special Purposes (Schools, Recreational Areas etc.) and Mission purposes. The lease period is 99 years and such leases are for sub-divided and serviced allotments. Replenishment of the stock of land is effected through forfeiture action against non users of land and extension of urban land. The procedures relating to these are involved and addition to the existing stock is consequently slow. A limitation in many towns is also serviced infrastructure. Lack of it, or its operation at maximum capacity is the feature. There is a shortage of serviced industrial land. This shortage is described in Government Departments as acute and chronic.

In addition, allocation procedures are complicated and time consuming. The need to simplify procedure and reduce time factor is considered as "a very real and immediate need:."

- 3.7 There is provision for development of raw land under a scheme known as 'Town Subdivision Lease'. Such leases are issued for five years with renewal option and the lease holder develops the service infrastructure. Individual allotment could then be transferred by him at market prices, conditional upon the grant of individual leases by Government over the created allotments. The importance of this scheme is two fold:-

The arrangement speeds up allocation of land and it increases the supply of serviced industrial land which is of much relevance in the context of the shortage of such land for investment.

The private industrial estate was developed at Lae in the Morobe Province on land obtained under such a lease.

The Consultant worked closely with the Managing Director of the Western Highlands Development Corporation Ltd, on a proposed 10 Hectare Industrial Estate for the Town of Mount Hagen in the Western Highlands Province. The proposal is at Appendix 8

- 3.8 Land Allocation in P.N.G. is being provincialised through the establishment of provincial land boards. These boards have been set up in seven of the nineteen provinces in the country. This policy is seen as a means to enlist participation and infuse a sense of responsibility on the part of provincial government towards meeting the land problems. It is an integral part of government programme of decentralisation. In order to be effective it is necessary to allocate a greater of responsibility to the provincial governments.
- 3.9 In view of the importance of setting up an information systems on industrial land, the consultant worked on the compilation of data on allocated industrial land throughout the country. Over 2500 allocations were covered. Physical verification was not possible due to the large number of allotments covered. The Directory of industrial land is presented as Part II of this report, subject to verification. The tabulated data presented indicates a distribution of the use of allocated industrial land, broken down into industrial use, non industrial use and vacant groups shows that each of the groups share an approximately equal number of lots. The total area of land in industrial use cannot be expressed due to the unavailability of data on the area of some of the lots. Yet arguments may be presented in favour of a situation in which a part of the land allocated for industry is used for non industrial purposes or not used at all and remaining

The criteria adopted for non industrial uses area :-

- (1) Wholesale activities
- (2) Commerce
- (3) Offices/Missions/Churches
- (4) Fuel Depots/Oil installations
- (5) Finance/Import Export Companies
- (6) Real Estate
- (7) Government Departments

Some of the non industrial uses listed may have indirect contribution towards industrial use.

Though the use of land allocated for industry, for non industrial purposes may not be illegal, such use is not desirable. Compilation of data on allocated industrial land with physical verification should be carried out. Such work should be obviously a continuous one. This aspect forms the basis of a recommendation that is being made.

3.10 Inadequate capacity of identify industrial opportunities is a deficiency at the national level in many developing countries. The public therefore have to be informed on the scope for setting up of industries this could stimulate the emergence of entrepreneurs. In Papua New Guinea information available to the public on potential industries is virtually nil.

- 3.11 The Small Industry Research and Development Centre of the Department of Commerce undertakes studies with a view to "hiving off" projects which could be set by small industrialists on their own. These studies are in the first instance tested out for their technical and commercial feasibility in the workshop of the Centre. In practice the preliminaries to hiving of projects have extended to considerable periods of time and effective dissemination of information by way of any model schemes for duplication of projects has not taken place.
- 3.12 The Industrial Development Division of the Department of Labour and Industry has a programme for feasibility studies. Thirty four projects have been listed for studies over the past two years. These are indicated at Appendix 9. Of this number, one had been completed and a commercial operation has been established on the basis of the study. Three more are planned to start production soon. No action was proceeded with an eight studies due to lack of staff. Twelve studies remain inconclusive. The major difficulty in the way of the Division carrying out its feasibility studies is the lack of staff. Hence studies are undertaken intermittently. It was also observed that the Division was called upon to carry out a variety of assignments and in doing so, with a limited staff, feasibility studies remain pending.

3.13 A situation is thus seen where there is no knowledge of who the potential national entrepreneurs are, what their interests and capabilities are. Information obtained from the Registrar of Companies shows that only 360 companies of the 2000 registered were fully owned by nationals and these were engaged mainly in agricultural activities and trade stalls. The information obtained from the Registrar in respect of nationals and other business groups has been handed over to the Industrial Development Division for follow up of action in regard to the interests and capabilities of nationals already engaged in activities from which they could emerge as industrialists.

3.14 The National Investors Scheme, and incentive measures introduced by government has been in operation for the past six months. It is meant to assist new national investors where investment in the project exceeds K125,000. Assistance is offered for feasibility studies in addition to other loan facilities by the banks, and the government directly. Application for feasibility studies were received from three parties - two for fish processing and one for clothing manufacturing. One of the two fish processing projects required K300,000 for feasibility studies. This was not approved and sponsorship of the Asian Development Bank was sought. A problem arose over the consultancy of the feasibility studies for clothing. The study was estimated at K9,000 and the project is not being pursued. This position

(contd/...)

served to confirm that appropriate feasibility studies had to be initiated by government where the intention is to assist small scale national investors.

- 3.15 It is observed that the style of feasibility studies take after pattern applicable to large investments. It is the experience of many countries that small industries could be started on the basis of direct information on aspects such as markets, process of production etc. These are brought out rapidly in the form of industry profiles, fact sheets or model schemes.

They will serve to stimulate interests of prospective investors. Potential small industrialists have benefited for such information published in many countries.

- 3.16 With the view of making the start with the collection of basic data such as market potential, the consultant sought the assistance of the Department of Works and Supply to obtain information on purchases made by the government. It was revealed that approximately forty million kina (K40,000,000.00) worth of goods were purchased by government at five centres annually. These centres were :-

National Capital	-	Badali
Morobe Province	-	Iae
Madang Province	-	Madang
East New Britain	-	Madang

Purchases were classified according to -

i) Imported items -

Direct imports by the Division of Supply

Indirect by local suppliers and agents.

ii) Locally manufactured items.

Preliminary information on a few grants indicated the following in regard to imports and local manufactures.

GROUP	SUB GROUP	LOCAL MANUFACTURE	DIRECT IMPORT	INDIRECT IMPORT	TOTAL
Vehicles	Bicycles & Spares	Nil	Nil	K53584	K53,684
Agricultural	Sprayers Garden Equipment	K23,580	K262,679	K73,603	K359,862
Hardware	Screws Nails Rivets Misc. H'ware.	K102,223	K37,263	Nil	K139,496
Furniture	Domestic Furniture Office Furniture Camping Furniture	K1,555,219	K255,977	K255,977	K2,640,022
Clothing	Safety clothing footwear Inter- changeable items Correct- ive ins- titutions Health Depart- ment Marine section Police Depart- ment	K487,326	K556,901	K519	K1,044,746

Station- ery	Office access- ories	Nil	K313,789.52	Nil	K478,134.52
	Office supplies				
	Office station- ery				

The consultant initiated this action in order to indicate that information source on markets could be used to publish informative fact sheets which create an interest in the scope of industrialisation in the general and small industry in particular. Likewise, contact was established with the Department of Minerals and Energy, OK TEDI Development Corporation and several others to establish the wide range of the canvas that is available for market information. All data obtained were passed on to the Industrial Development Division of the Department of Labour and Industry.

3.17 The Small Industries Division of the Department of Commerce has a network of Business Development Centres spread over the country. It was not possible to obtain data sufficient enough to make detailed observations. The main area of activities of the Department fall into the following broad categories.

- a. sericulture project
- b. handicraft section
- c. small industry research and development centre
- d. special projects
- e. industrial extension services
- f. headquarters administration and technical information services.

The special projects operated by the Department of Commerce in various provinces include activities such as weaving, pottery, shell products and silk screen printing.

3.18 The problems encountered by the Small Industries Division in the annual report of the Department for the period ended December 1978. A relevant extra is as follows :-

"It must be pointed out that even though we can enumerate all our inputs in terms of technical and managerial assistance, training, research etc. and do so as much as we can we cannot compell people into undertaking small industries. As the old adage states 'you can take a horse to water but you cannot make him drink'. As in any country the number of entrepreneurs who have the ability, drive and resources to handle all aspects of managing a small business of small description is very small. However, as will be seen below this division does as much as it can to research into and carry out identified pilot scale projects, as well as attempt to identify potential entrepreneurs.

Due however to the difficulty of finding suitable entrepreneurs the Department continues to implement projects with great strains on its resources."

3.19 This confirms the basic deficiency of lack of indigenous entrepreneurship. The approach of interrelationship between large and small industries under the development of feeder units proposed in this study is meant to deal with the problem at its very roots - that is to recognise the deficiency and to provide measures to overcome it.

3.20 An effective extension service is lacking in the country in regard to industrial promotion. Action is necessary on the continuing basis to take information to the people and seek out and encourage entrepreneurs to invest in identified projects. Developing countries adopt extension methods appropriate to the needs of the country and the stage of development of entrepreneurial talent. The proposed industrial estate concept incorporates extension service. Aggressive extension services to the country at large is the least that could be done to promote the development of Papua New Guinea at this stage.

3.21 FINANCING OF THE ESTATE - COST BENEFIT ANALYSIS
AND ADMINISTRATIVE MACHINERY

The following observations are made in this regard:-

1. P.N.G. is identified as almost totally lacking in indigenous industrial entrepreneurship. Indigenous participation could not be expected to be achieved until the basic requirement was looked into, means had to be devised to develop entrepreneurs. The consultant paid much attention to this aspect as a pre condition for meaningful development of the Estate Project.
2. The result of this effort and attention is the acceptance of the participation by the PNG Development Bank and several large scale industries in a programme to develop entrepreneurs.
3. Suitable Administrative Machinery was found through the willingness of the PNG Development Bank to establish the Estate as a Bank Project, utilising services of their Projects Department. Assessment of manpower and financial requirements was not undertaken in this context.
4. Sources of aid finance too were not necessary for the planning and implementation of the project, when it was to be implemented as bank project.

5. On the basis of mutual recognition of the respective contributions by the P.N.G. Development Bank and the large industrial sector, the Bank will invest in buildings, and services. At this stage it is not possible to forecast establishment costs, but it is envisaged that parallel development of the estate could take place in regard to provincial multi unit factory buildings and single unit operations. The services, as already indicated earlier in the report would be closely supervised operation meant to steer the selected tenant enterprises through all the stages of operations - in effect the creation of entrepreneurial skill and viable projects.
6. The proposed pilot industrial estate for P.N.G. in the context of the situation prevailing in the country would not lend itself to a cost benefit and analysis. The benefits include contribution to the economy which cannot be adequately expressed in monetary terms. In fact there will be more than commensurate financial investments made on the project.

4.0 RECOMMENDATIONS4.1 RECOMMENDATION NO. 1 - SETTING UP OF A PILOT ESTATE AT GEREHU INDUSTRIAL AREA

In recognition of the scope and potential of the industrial estate as an effective instrument to promote and develop indigenous entrepreneurship, it is recommended that :-

- . one estate be set up as a Pilot Project in the Gerehu Industrial Area.
- . The prime objective of the Estate be the promotion of nationally owned and operated small enterprises.
- . The Estate be sponsored, financed and managed by the Papua New Guinea Development Bank.
- . Modernised small industries be set up in the estate as feeder units to large industries.
- . The main incentive and assistance should be the provision of a service that would steer selected industries through all stages of establishment and operation:
 - . factory accommodation,
 - . financial assistance,
 - . technical training and guidance,
 - . management assistance and close supervision being components of the service.

4.2 TASKS CARRIED OUT BY CONSULTANT IN RELATIONSHIP TO RECOMMENDATION NO. 1

- 4.2.1 Met with senior representatives of the Papua New Guinea Development Bank and the large scale industrial sector and worked towards an implementation programme. Gained acceptance of the appropriability of the Bank's concept, its role and potential for development of P.N.G. -- from the PNG Development Bank and several large industries.
- 4.2.2 Letter from P.N.G. Development Bank confirming their interest in a commitment in principle to the following:-
- a. the establishment of an industrial estate to be sited in the Goro Industrial Area in the National Capital District for the promotion of nationally owned and operated small to medium scale industries.
 - b. Plans for the Estate to proceed as a Bank Project.
 - c. Availability of necessary funds to cover the total establishment cost.
 - d. Assessations made of the required land.
- 4.2.3 Identified scope for candidate industries at the proposed Estate. The response of the large scale industrial sector to the proposal was as follows:-

<u>NAME OF COMPANY</u>	<u>ACTIVITY OF COMPANY</u>	<u>RESPONSE</u>
1) New Guinea Industries	Steel Fabrication Plant	Discussions between Managing Director of the firm and PNG Development Bank continued. Details of participation being worked out.
2) M.A.H. Birner	Building Contractors	Support for a Joinery Unit, with market, technical training, & supervision.
3) A.R.C. Titan	Building Contractors	Support for a Fabrication & Erection Unit with market, Technical Guidance.
4) Niugini Steel	Steel Products	Support for one industrial coating unit and one fabrication and installation service unit, with market, and technical training.
5) Barlow Industries Pty. Ltd.	Sheet Metal Work	Support for a unit for charcoal burning stoves and other sheet metal with market and technical guarantee.
6) Hornibrook Constructions Pty. Ltd.	Steel Fabrication & general engineering	Support for a unit fabricating reinforcing bars with shapes required for contributions and one machine shop with market, Technical Training & Supervision.

<u>NAME OF COMPANY</u>	<u>ACTIVITY OF COMPANY</u>	<u>RESPONSE</u>
7) Longreach Clothing	Readymade Garments & Industrial Protective Clothing	Support for one readymade Garments Unit with market, Training
8) San Migual & Swan Holdings Ltd.	Brewery	Market support for Plastic Hoses, Stubby Coolers, Laminating services & Glass Tumblers.
9) W.R. Carpenter PNG Ltd.	Commerce, Manufacturing & Services	Market support for Plastic Ware for Kitchen/Toilet - Initial K50,000. Written confirmation at <u>Appendix</u>
10) Atlas Plant Hire Pty. Ltd.	Plant Hire	Support for repair Servicing Unit.
11) Burns Philp New Guinea Ltd.	Commerce, Manufacturing & Services	Market Support and Offer of Assistance to Tenant Enterprises on Machinery and Equipment Prices.
12) Steamships Trading Co.	Commerce, Manufacturing and Services	Market Support

4.3 RECOMMENDATION NO. 2

In order to fill the gap in the availability of essential information on industrial land it is recommended that data should be collected systematically and continuously and be readily available for dissemination. The information should include features such as available land, proposed infrastructure, areas proposed to be rezoned or alienated for industry, allocated unutilised land, closure or commencement of activities. The usefulness to government of such an information system for planning purposes and the guidance it could provide prospective investors is emphasised. Co-ordination of this work would be an essential element for its success.

It is recommended that the implementation of this proposal be entrusted to the Industrial Development Division of the Department of Labour & Industry, as an activity of the Project Officer (Industrial Services).

4.4 TASKS CARRIED OUT BY CONSULTANT IN RELATIONSHIP TO RECOMMENDATION NO. 2

4.4.1 Compiled a directory of industrial land - coverage extending to the whole country. The information includes section allotment numbers, occupancy and activity of over 2,500 allocated industrial allotments up to July, 1980.

4.4.2 Initiated work on preparation of maps which would indicate zoned industrial areas and allotments for about 20 towns. These maps will serve to ascertain locations of allotments compiled in the directory.

4.4.3 Initiated discussions with the Secretary, Department of Lands Surveys and Environment and the Secretary, Department of Labour & Industry with a view to early implementation.

4.5 RECOMMENDATION NO. 3

This recommendation is based on the existing situation in P.N.G. where the smaller indigenous entrepreneur who does not have sufficient experience or skill to formulate his own project has received little or no attention at all. Assistance at the preinvestment stage has tended to concentrate on the larger type of industrial projects

attractive to foreign investors.

The Industrial Estate has been presented in this report as a means of stimulating indigenous entrepreneurship. An essential complementary measure which needs to be adopted for promotion of small industry development is, the dissemination of information on industry potential. Opportunities identified for establishment of new industries should be given publicity to attract public attention.

Government Agencies responsible for promotion of small industries in several development countries release preliminary studies containing sufficient information to create interest among small investors. Such studies for Papua New Guinea in the form of Fact Sheets and Industry Profiles, could include essential information on availability of market for the product at a proposed selling price, raw material sources, and possible locations with indications of availability of industrial land.

It is recommended that:-

- . Attention be paid to expeditiously identify opportunities for establishment of small industries of indigenous entrepreneurs.
- . Preliminary information in the form of Fact Sheets or Industry Profiles be disseminated on a wide scale to stimulate interest of investors.

- . The Industrial Development Division of the Department of Labour & Industry be strengthened and assigned this function to be carried out as a regular priority activity.

The Planning Branch of Industrial Development Division of the Department of Labour & Industry is already doing work on feasibility studies. The emphasis should be on quick release of preliminary information. At the stage of project formulation and implementation, the assistance of the Projects Branch within the Division should be available to the interested investors. Here again the limitation is lack of sufficient staff and resources.

4.6 RECOMMENDATION NO. 4

- 4.6.1 This is related to the national objective of Decentralisation. The role and potential of the Industrial Estate as a means to promote decentralisation of industrial activity is reflected in a tangible form in the proposal of the Western Highlands Development Corporation Ltd. to establish an Industrial Estate for the town of Mt. Hagen in the Western Highlands. The proposal is at Appendix 9.
- 4.6.2 The lacuna that exist in the Provinces in regard to knowledge of and information on resources needs to be filled. The Provincial Planners Office would no doubt be the respository of this information. Availability of this information is essential for development. Here again, involved time consuming and extensive studies need not be undertaken. Collection and maintenance of

updated information on resources would be a good enough guidance for the creation of interest. Thus an essential requirement could be provided by an existing Government office. The consultant met a number of Provincial Planners and discussed the importance of this aspect of work. Their response was positive.

4.6.3 It is recommended that:-

- . The central government extend the fullest co-operation and support to the Western Highlands Development Corporation Ltd. to enable them to set up their estate project speedily.
- . Central Government guarantee be considered to the Western Highlands Development Corporation Ltd. for specified periods, for return on investment made by the Corporation to provide advance factory buildings. The guarantee would be in relationship to occupancy rate and total number of buildings provided.
- . The Central Government provide all possible back-up support to the Provincial Governments to enable them to undertake compilation of information on resources of the Province. The mutual advantage and National benefits that would flow from this endeavour are emphasised.

4.7 RECOMMENDATION NO. 5

This recommendation is on the participation by the Private Sector, in industrial estate development. The activity is envisaged more as a national contribution extending beyond standard business notions of return on investment. The consultant discussed with private developers the concept of the estate with special reference to provision of advance factories as a means to reduce initial investment by small industrialists and accelerate development. X

Confirmation was received from W.R. Carpenter (PNG) Ltd., of their willingness to provide in advance two factory buildings (2000-2500 sq.ft. each) and build further when these were leased out. Offer of the land for ownership by the tenant was also included. This company co-operated in the proposed Pilot Industrial Estate at Gerehu by ensuring the market for a line of plastic ware which would contribute to the setting up of a small scale project at the estate.

It is recommended that Government enlist the participation of private sector developers in the industrial estate development programme by appropriate extension services. Monetary gains are not the only inducements to participation. Consultative meetings, and infusing a sense of social responsibility are for example, aspects of motivation. /

4.8 RECOMMENDATION NO. 6

It is recommended that Government organise a programme of "Exposure visits" to indigenous small entrepreneurs to enable them to learn from experiences of other developing countries, where more progress has been achieved in relation to small industry development and Industrial Estate Programmes.

Study Tour
Fiji

This recommendation assumes that the innate entrepreneurial talent and capabilities which reside in the population of PNG, will respond quickly through demonstration effect. At present there are no opportunities for them to learn from experiences within the country.

The Local and Foreign Exchange costs of such visits could be shared by PNG and the host country. Assistance¹ of industrial promotion Agencies could be sought and obtained as well.

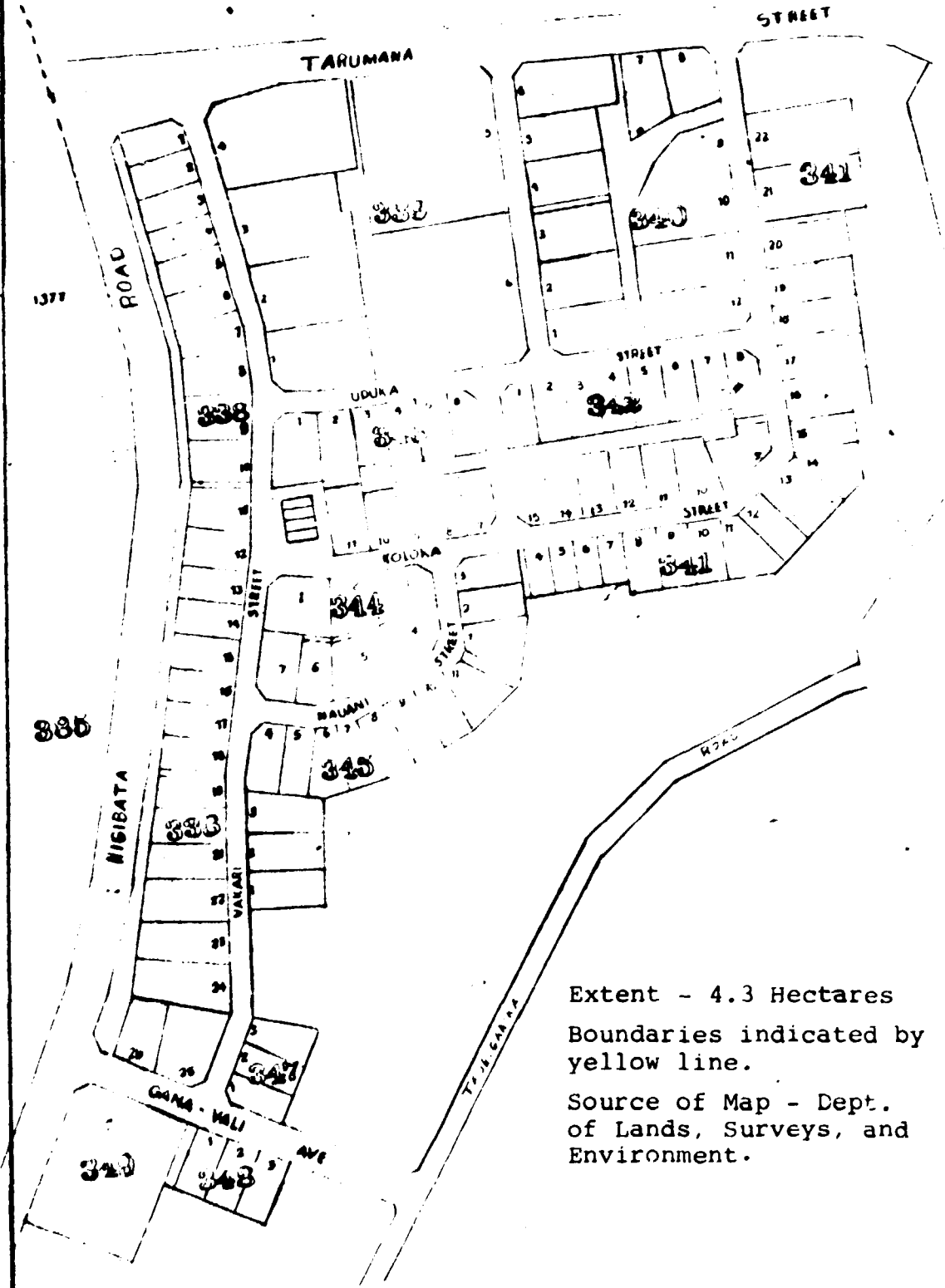
Small scale entrepreneurs have in many countries grown into "captains" of industry - the potential exists in Papua New Guinea too.

ANNEX & APPENDICES

- | | | | |
|----------|---|---|---|
| ANNEX | I | - | Location Map of the Proposed Pilot Industrial Estate |
| APPENDIX | 1 | - | Job Description of the Consultant |
| APPENDIX | 2 | - | Persons met during the course of discussions |
| APPENDIX | 3 | - | Papua New Guinea Development Bank
A Brief Look at its Beginning and Environment |
| APPENDIX | 4 | - | Letter from Papua New Guinea Development Bank. Commitment to Proposed Pilot Estate at Gerehu |
| APPENDIX | 5 | - | Letter from Hornibrook Constructions Pty. Ltd. - Offer of Participation in the Pilot Estate at Gerehu |
| APPENDIX | 6 | - | Letter from Papua New Guinea Development Bank. Response to Offer of Participation by Hornibrook Constructions Pty. Ltd. |
| APPENDIX | 7 | - | Letter from W.R. Carpenters (PNG) Ltd. Offer of Industrial Estate Development |
| APPENDIX | 8 | - | Proposed Estate at Mount Hagen by the Western Highlands Development Corporation Ltd |
| APPENDIX | 9 | - | Feasibility Studies of the Industrial Development Division of the Department Labour and Industry |

LOCATION MAP

PROPOSED PILOT INDUSTRIAL ESTATE
GEREHU INDUSTRIAL AREA
NATIONAL CAPITAL DISTRICT
PAPUA NEW GUINEA



Extent - 4.3 Hectares
Boundaries indicated by yellow line.
Source of Map - Dept. of Lands, Surveys, and Environment.

ANNEX II

DISTRIBUTION OF THE USE OF ALLOCATED INDUSTRIAL LAND

Province	Location	INDUSTRIAL USE			NON INDUSTRIAL USE			VACANT			TOTAL OF LOTS	TOTAL AREA
		No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area		
WESTERN	DARU	6	3	0.9781	19	16	1.4189	5	3	0.4408	30	14.6679
GULF	KEREMA	5	4	0.2717	1	1	-	7	5	0.482	13	0.7537
NATIONAL CAPITAL	GEREHU	76	-	35.5585	8	8	2.8288	54	54	7.9868	138	46.3741
	GORDONS	155	155	35.56708	108	107	22.23754	26	25	4.8407	289	62.64752
	SIX MILE	50	43	40.2059	16	11	16.4456	13	13	9.1456	78	65.7971
								Portions-3	Portions-3	1.2371	Portion-3	1.2371
	BADILI	14	14	1.460	26	14	2.5852	37	31	4.0758	57	8.121
	NEWTOWN	9	9	2.3905	11	11	2.2836	10	10	3.1978	30	7.8719
MILNE BAY	SAMARAI	-	-	-	6	-	-	3	-	-	9	-
	ALOTAU	11	11	10.2087	11	11	4.5615	13	13	3.4595	35	18.2251

ANNEX II (Page 2)

Province	Location	INDUSTRIAL USE			NON INDUSTRIAL USE			VACANT			TOTAL OF LOTS	TOTAL AREA
		No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area		
NORTHERN	POPONDETTA	34	6	2.2039	27	19	2.9164	36 Portion-1	19 -	4.1999 -	97 Portion 1	9.3202 -
EASTERN HIGHLANDS	GOROKA	58 Portion 2	58 2	13.6247 2.1333	53	52	8.7598	19 Portion 4	7 Portion 4	0.3921 25.5721	130 Portion 6	22.7766 27.7054
		KAINANTU	11	-	-	16	-	-	4 Portion 1	-	-	31 Portion 1
SIMBU	KUNDIAWA	9	9	6.4922	4	4	1.4937	-	-	-	13	7.9859
WESTERN HIGHLANDS	MT. HAGEN	49	45	15.7353	20	17	5.741	11	7	2.828	80	24.3043
ENGA	WABAG	4	3	0.5096	6	6	1.3568	1	1	0.4706	11	2.3369
	WAPENA- MANDA	-	-	-	3	3	0.6006	5	3	0.2618	8	0.8624
SOUTHERN HIGHLANDS	MENDI	11	11	9.289	6	6	4.573	1	1	0.2695	18	14.1315
MORCBE	LAE	197 Portion-1	97	50.3622	202	59	24.1953	343	61 Portion-1	108.887	742 Portion 2	193.4445

ANNEX II (Page 3)

Province	Location	INDUSTRIAL USE			NON INDUSTRIAL USE			VACANT			TOTAL NO. OF LOTS	TOTAL AREA
		No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area		
MADANG	MADANG	56	56	35.42043	72	72	14.14077	86	67	32.4659	214	82.0271
EAST SEPIK	WEWAK	32	32	13.099	48	45	11.4675	5	5	1.158	85	25.7245
	AMBUNTI	-	-	-	-	-	-	2	2	9.572	2	9.572
	PAGWI	-	-	-	-	-	-	5	5	0.4341	5	0.4341
WEST SEPIK	VANIMO	6	5	1.3717	18	18	4.20265	9	9	4.5051	33	10.07945
NEW IRELAND		-	-	-	-	-	-	41	-	-	67	-
EAST NEW BRITAIN	RABAU	30	-	-	59	-	-	41	-	-	130	-
WEST NEW BRITAIN	KIMBE	26	26	27.3546	21	21	9.8676	42	35	10.2158	89	47.438
	BIALA	-	-	-	-	-	-	6	6	0.6101	6	0.6101

ANNEX II (page 4)

Province	Location	INDUSTRIAL USE			NON INDUSTRIAL USE			VACANT			TOTAL NO. OF LOTS	TOTAL AREA
		No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area	No. of Lots	No. of Lots Area Known	Area		
NORTH SOLOMONS	ARAWA	35	29	4.5404	52	45	10.017	18 Portion 1	11 -	2.885 -	105 Portion 1	17.4424 -
	KIETA	22	22	3.6126	40	38	10.1000	24	24	5.6987	86	19.5121
MANUS	LORENGAU	-	-	DATA UNAVAILABLE -								
GRAND TOTAL		906 Portion 2		310.25611 2.1333	878		142.24036	867		245.290	2,651 Portions 14	697.79247 53.9425

PROJECT IN PAPUA NEW GUINEA

Consultant for Industrial Estates Planning

JOB DESCRIPTION

SI/PNG/79/805/11-01/31.3E

POST TITLE: Industrial Economist/Engineer

DURATION: Six Months

DATE REQUIRED: January 1980

DUTY STATION: Port Moresby, with travel within the country

PURPOSE OF THE PROJECT: To undertake a feasibility study for the development of an industrial estates programme in Papua New Guinea in the light of prospective development and recommend locations and sizes of industrial estates in full consideration of economic factors.

DUTIES: Specifically the expert will be expected:

- a. To examine the relevancy and potential role of industrial estates in the development of Papua New Guinea.
- b. In co-operation with the Department of Lands, Surveys and Environment and the Division of Industrial Development, compile information on industrial land throughout the country, indicating respective features and characteristics, the need for development/improvement in the provision of necessary infrastructure, and the respective case of acquisition for industrial development.
- c. To recommend suitable locations for industrial estates in full consideration of economic factors and development goals. Within the recommendation of each location, the selection criteria should be made explicit.

- d. To advise on suitable industries for location on industrial estates in Papua New Guinea. This assessment should indicate the size, feasibility and special requirements of each industry.
- e. To recommend the most suitable means of achieving development aims through an industrial estates programme. In this regard, consideration should be give to:
 - aa. the stage of development at which estates are to be made available to client industries (e.g. with or without advance factory units, or in some combination);
 - bb. the size, or range of sizes, of industrial estates;
 - cc. the provision of loans, technical assistance, advisory centres, training facilities and ancilliary facilities;
 - dd. preference to nationally-owned enterprises;
 - ee. other industrial incentives to enterprises locating on an industrial estate.
- f. To recommend the most suitable administrative machinery for implementing an industrial estates programme, and advise on the associated manpower and financial requirements.
- g. To indicate the financial costs and revenues, and social and economic returns, of an industrial estates programme in Papua New Guinea.
- h. To advise on potential sources of aid finance for the planning and implementation of an industrial estates programme.

QUALIFICATION: An industrial economics engineer who has experience in the planning and development of industrial estates as part of an overall strategy for industrial development.

LANGUAGE: English.

**BACKGROUND
INFORMATION:**

The Government of Papua New Guinea has given the development of small industries great priority and in this context wishes to assess the feasibility of developing an industrial estates programme, since such estates very often play an important role in fostering industrial development i.e. by promoting and raising productivity in small-scale industries or promoting specific industrial sectors and groups of skilled and qualified persons.

The proposed feasibility study should provide facts and guide-lines for a Government decision to implement an industrial estates programme.

PERSONS MET DURING THE COURSE OF DISCUSSIONS

- | | |
|--------------------------|--|
| Mr. Kipling Uiari | - Former Secretary Dept. of Labour & Industry |
| Mr. Philip Dandi | - Present Secretary Dept. of Labour & Industry |
| Mr. Waosi Wekina | - Secretary Dept. Commerce |
| Mr. Jack Genia | - Secretary Dept. Lands, Survey & Env. |
| Mr. Pious Kerepia | - Secretary Dept. of Works & Supply |
| Mr. Ekonia Boas | - A/Assistant Secretary Dept. of Labour & Industry |
| Mr. Elipas Mosogo | - Deputy Secretary Department of Decentralisation |
| Mr. E.M. Wijenaik | - UNIDO Adviser - Dept. of Commerce |
| Mr. N.G. Chakrabarti | - Foundry Expert - UNIDO |
| Mr. P. Japhlom | - Commissioner National Housing Commission |
| Mr. M. Manning | - First Assistant Secretary Provincial & Statutory Institutions Division - Department of Finance |
| Mr. Amos White | - First Assistant Secretary Policy & Research - Dept. of Lands Survey & Env. |
| Mr. R. Guise | - First Assistant Secretary - Dept. of Works & Supply |
| Mr. Colin Huddy | - Labour Statistician Dept. of Labour & Industry |
| Mr. Warren Bartlett | - Managing Director - Western Highlands Development Corporation Ltd. |
| Mr. Peter Colton | - Provincial Planner - Madang Province |
| Mr. Utula Samana | - Former Provincial Planner - Morobe Province |
| Mr. Mel Togolo | - Provincial Planner - North Solomons Province |
| Mr. Gabriel Waipok | - Secretary Dept. of Western Highlands |
| Mr. Gordon E. Gresham | - Executive Director Forest Industries Council of P.N.G. |
| Mr. Douglas A. Hinckfuss | - Manager, Corporate Planning, Bougainville Copper Ltd. |
| Mr. Chris Warrilow | - OK Tedi Co-ordinator, Dept. of Minerals & Energy |
| Professor Brian Brogan | - Head, Dept. of Economics, University of P.N.G. |
| Dr. N.V. Lam | - Institute of Applied Social & Economic Research |
| Mr. Terry J. Pitt | - Director of Research Institute of National Affairs |

Mr. George A. Poulter	- Director and General Manager, Burns Philp New Guinea Ltd.
Mr. Michael E. Bendall	- Managing Director, W.R. Carpenters (PNG) Ltd.
Mr. D.N. Harvey	- Managing Director, Steamships Trading Co.
Mr. Werner Rasputnik	- Manager, Hornibrooks Constructions Pty. Ltd.
Mr. James H.L. Seeto	- Managing Director, LINGANA Pty. Ltd.
Mrs. R. White	- Training Manager, Steamships Trading Co.
Mr. McLellan	- Managing Director, New Guinea Industries
Mr. Gunter H. Trnka	- Managing Director, Atlas Plant Hire Pty. Ltd.
Mr. P. Boening	- Managing Director, Niugini Steel Corporation
Mr. Lou Port	- M.A.H. Burner Pty. Ltd.,
Mr. Hans Rademacher	- Managing Director, PNG Colour Lab.
Mr. Alan Fleay	- Branch Manager, Port Moresby, A.R.C. Titan
Mr. Philip Telesco	- Managing Director, San Miguel Brewery
Mr. Adrian Hughes	- Plant Manager, San Miguel Brewery
Mr. Geoff Colman	- Managing Director, Uni Groups of Companies P.N.G.
Mr. R.B. Kagi	- General Manager, Longreach Clothing Pty. Ltd.
Mr. Louis Varstermans	- Managing Director, Niugini Paper Corporation Pty. Ltd.
Mr. Lou Dingjan	- Manager, A.C.I. Amalgamated Packaging - Lae
Mr. Albie Neal	- Company Secretary, Wewak Timbers Pty. Ltd.
Mr. Boe Arua	- Director Hebam Press - P.N.G.
Mr. Morakai Aru	- F & M Joinery
Mr. Russell Hayes	- Busu Coffee Pty. Ltd.
Mr. George Kilamelona	- Chairman - Landboard of P.N.G.
Mr. Tom Easton	- Town Planner of P.N.G. - Dept. of Urban Development
Mr. Brian Aldrich	- Urban Projects Manager, Dept. Lands
Mr. W. Desini	- Chief Draftsman - Dept. of Lands
Mr. John Morey	- Chief Draftsman - Cartographic Section - Dept. of Lands
Mr. Andrew Saun	- National Mapping Bureau
Mr. John Morey	- Provincial Natural Resources Officer - Morobe Province
Mr. John Barwell	- Regional Town Planner - Lae

Mr. Daniel Datakumb	- Provincial Natural Resources Officer - Madang
Mr. Norman Leat	- Regional Surveyor - Madang Dept. of Lands
Mr. Roque Guiarao	- Provincial Surveyor - North Solomons Province
Mr. John Austin	- Provincial Natural Resources Officer - North Solomons Province
Mr. Terry Wapa	- Dept. of Lands, Goroka
Mr. N. Mark	- Town Planner - Goroka
Mr. Pepi Kimas	- Provincial Lands Officer, Mt. Hagen
Mr. Nauda Aewadi	- Draftsman, Dept. of Lands
Mr. Pius Koriawagen	- Draftsman, Dept. of Lands
Mr. Olewale	- Allocation Manager, Dept. of Lands
Miss Frieda Pickir	- Dupty Chairman Land Board
Mr. Garia Gari	- O.I.C. Leases - Dept. of Lands
Mr. Fredrick Brands	- Manager, Lend Lease Pacific
Mr. Peter Alexander	- PNG Banking Corporation
Mr. Robert Kostzka	- Managing Director, Chimbu Coffee Ltd.
Mr. John Reid	- Proprietor, Koki Marine & Service Station
Mr. Russ Johnston	- Property Manager, W.R. Carpenter (PNG) Pty. Ltd.
Mrs. Carol Webb	- Secretary, Port Moresby Chamber of Commerce
Miss Anne Hamyln	- Secretary, Lae Chamber of Commerce
Mr. Ed. Arata	- Operations Manager, Appropriate Tech. Development, University of Technology
Mr. John Cruikshank	- President & Executive Officer, Assoc. Chamber of Commerce - P.N.G.
Mr. G. Zonneveld	- President - Port Moresby Chamber of Commerce
Mr. V. Freedman	- President - Lae Chamber of Commerce
Mr. Tony Cliff	- President - Madang Chamber of Commerce
Mr. Cam Bennet	- President - Goroka Chamber of Commerce
Mr. Mel Togolo	- Chairman PNG Development Bank
Mr. Masket Langalio	- Managing PNG Development Bank
Mr. Tony Reid	- Manager, Operations Department - PNG Development Bank
Mr. Kare Moi	- Registrar of Companies
Mr. R. Gilbert	- Director of Census
Mr. W. Desini	- Chief Architect, Lands Department
Mr. Makina Rawali	- Secretary - NIDA Board
Mr. Wep Kanawi	- Deputy Director - NIDA

Mr. Gia Ola	- Officer-in-Charge, Computer & Monetary - NIDA
Mr. John Christinson	- Dept. of Primary Industry
Mr. B. Oleary	- National Planning Office
Mr. V. Shenoi	- National Planning Office
Mr. Kholi	- National Planning Office
Mr. R. Montgomery	- Dept. of Finance
Mr. F.X. Inere	- Director - Bureau of Industrial Organisation
Mr. P. Sariman	- Executive Officer, Apprenticeship Board
Mr. Mike Butt	- Chief Estimator - Dept. of Works & Supply
Mr. Peter Brown	- Adviser, Cataloguing
Mr. Pana Ranu	- Senior Supply Officer - Headquarters
Mr. Isiah Peter	- Inventory Manager - Division of Supply Badili - Dept. of Works & Supply
Dr. Ken Newcombe	- Energy Planner - Department of Minerals & Energy
Mr. Lamech Palasco	- Research Officer - Dept. of Minerals & Energy
Ms. Paivoke Aira	- U.N. Volunteer - Dept. of Mineral & Energy
Mr. J. Muttu Gware	- Butibam Progress Association - Lae
Mr. Robin Kumaina	- National Businessmen's Foundation of P.N.G.
Mr. Frank Kramer	- Secretary - National Businessmen's Foundation of P.N.G.
Mr. Karl Dewit	- Assistant Secretary - Dept. of Commerce
Mr. D. Burrowes	- Assistant Secretary - Dept. of Commerce
Mr. Lipscombe	- Principal Field Training Officer - Department of Commerce
Mr. M.L.J. Bob Drew	- O.I.C. Small Industry Research & Development Centre - Dept. of Commerce
Mr. A.C. Marchant	- Senior Research Officer - Dept. of Commerce

PAPUA NEW GUINEA DEVELOPMENT BANKA BRIEF LOOK AT ITS BEGINNING AND EVOLUTION

In a country perhaps best noted for its primitive tribes than anything else, Papua New Guinea has a long road ahead of it in becoming a developed country. The transition from basically subsistence farming to an industrial society will require considerable effort and involve a substantial amount of funds. At the grass roots level the government has taken a number of measures to assist this process one of which has been to establish the Papua New Guinea Development Bank.

The concept of a development bank in P.N.G. is not new and even before the PNGDB's formation there was some limited development finance operations conducted by the Native Loans Board and the Australian government owned, Commonwealth Development Bank operating through the branch structure of what was then the Commonwealth Banking Corporation's operations in PNG. The Australian development bank's activities however were, and are, considerably different from those normally associated with developing countries. Thus in 1964 when a visiting mission of the World Bank (IBRD) recommended the establishment of a separate development finance operation to supplement the other institutions in the PNG financial market, the suggestion was considered favourably by both Australian and the Territory's Administration. As a result the Papua New Guinea Development Bank Act was passed in 1965 and the bank itself commenced operations on 6 July, 1967.

The Management and Board of Directors of the Papua New Guinea Development Bank have always been cognizant of the fact that the term development covers social and political as well as economic aims, and that while DPI's must primarily concentrate on the economic aspect, they are obliged by their nature to ensure that any development program undertaken is in line with overall political (Government) strategy and that it does not create too great a disturbance of existing social and traditional values.

Before the PNG Development Bank came into being the greater number of Nationals were engaged in the subsistence economy with no access to monetary credit from existing lending institutions.

Those nationals who were engaged in business (mainly agricultural cash cropping - coffee, cocoa, coconuts, etc.) and who sought an association with a commercial bank invariably found themselves limited to a credit account facility only.

The Bank realised that to properly fulfil its function it could not simply sit back and wait for the people to come to it; rather it had to devise a system of taking its service to the people.

This was not an easy task.

Although unlike most countries of the south west Pacific region in that it has a very large land mass, it is similar in other respects in that it has:

- (a) relatively small population
- (b) a great many islands most of which have some form of habitation
- (c) inadequate road network
- (d) high proportion of rural to total population
- (e) high levels of essential food imports
- (f) high proportion of agricultural exports to total exports
- (g) presently a low level of technological capability
- (h) little industrial development
- (i) insufficient properly trained extension workers

Since the majority of the people the Bank set out to help had no prior experience of loan finance, it was obvious that any system devised to deliver such loan finance must be highly personalised, must include an element of promotion

(many prospective clients required guidance in business selection) and must be capable of providing effective and continuing after care i.e. lending must be in the form Supervised Credit.

Because the written word is not always the most effective means to communicate these ideas, the bank has made use of other government agencies' extension services as well as the commercial banking system to explain its lending system and has even prepared a comic strip story as to how a group of local farmers, through hard work and the help of their development bank, are able to enter the cattle business.

In making its advances, too, the bank's staff have had to keep in mind that the traditional outlook on borrowing is quite different than the Western system of regular monthly payments. So to avoid potential conflicts, the loan repayments, especially on cash crop related advances, are scheduled in line with the sale of those commodities. Similarly when the bank experiences some problems with its borrowers, it has had to choose either to experience a high level of bad and doubtful debts or adopt a more flexible repayment period compromise. To police its debtors the bank has found the best policy is to make the payments as easy as possible and ensure that the bank's staff are frequent visitors to borrowers' projects. This "constant contact" programme has worked quite well as it has had a number of beneficial side effects in terms of more easily available professional advice and the borrowers developing greater self confidence. The bank is presently expanding its own field representative staffing as well as using other government agencies and district officers to assist where possible. As a result the local/national lending of amounts less than £10,000 (an area where the most bad debts might be expected) has been able to report that only 6 per cent of the total amount outstanding is overdue by more than 2 months.

Another lending adaptation, which has been with the assistance of the government, is the lending to tribal or village groups as a whole rather than to just one borrower or a more formal corporation. This was made possible through the Business Groups Incorporation Act which allows villagers and other groups to operate commercial enterprises according to their own laws and customs. The government has encouraged such ventures also through its Village Economic Development Fund which supplements the bank's lending with direct grants. By 1978 over 140 such groups had received assistance under this programme.

While the philosophy of supervised credit is not new, PNGDB has initiated a new and unique type of development whereby field extension services are encouraged to use credit as an addition to their normal activities and which provides the means of promoting in practice what in the past they had been able to teach in theory only. A measure of the success achieved is provided by the following statistics on lending to Nationals on a year by year basis.

	<u>NO</u>	<u>K'000</u>	<u>AV. LOAN SIZE (K'000)</u>
1967/68	422	678.2	1.6
68/69	530	808.3	1.5
69/70	1,176	1,673.8	1.4
70/71	1,889	2,290.0	1.2
71/72	2,203	3,884.2	1.8
72/73	1,392	2,920.6	2.1
73/74	1,529	3,461.5	2.3
74/75	2,182	5,818.4	2.7
75/76	1,751	7,206.3	4.1
76/77	2,469	9,636.7	3.9
6 mths July-Dec 77	2,873	7,201.4	2.5
78	5,457	14,934.2	2.7

This gradual increase in Papua New Guinean borrowing is partially from an expansion of the bank's agricultural lending programmes. For example, in conjunction with the World Bank, the PNGDB has been involved in the financing of major palm oil land resettlement schemes in

West New Britain and Northern Province. However in many respects the change is simply a reflection of the national economy and the bank has not had to conduct additional local commercial orientated lending as more and more Papua New Guineans become involved in commercial and industrial businesses. Similarly as the government's agricultural development plans succeed, more commercial infrastructure is necessary to support rural areas.

True to its function under the Act, the Bank has based its loan decisions on prospects of success, but it has not neglected the security aspect; it seeks wherever possible to take some sort of charge over assets financial and any other asset borrower may have.

Unlike other lenders in PNG, the Bank adopted an aggressive policy towards provision of finance for development of clan land.

In most modern societies, land, whether for agricultural, commercial or industrial development, is generally considered to be a prime form of security. It is immovable, tends to appreciate rather than depreciate in value and legal ownership can easily be established.

This legal ownership (title) clearly identifies location and boundaries of the land and the usage rights. It also evidences transferability of usage rights e.g. by way of sale or sub-lease.

The situation regarding land in P.N.G. is that over 90% of it does not have legal title i.e. it is held according to clan custom under which usage rights are generally quite fragmented (e.g. could include rights to gather firewood, cut down trees, walk over, live on, hunt, grow crops, etc.). Such land, in Papua New Guinea, cannot be mortgaged.

The Food and Agriculture Organisation of the United Nations, in a Study of Agricultural Credit through Co-operative (1965) had this to say:-

"As far as long term credit is concerned, experience has proved that security of real estate is indeed indispensable. No credit institution can afford to, or should, provide loans for periods of 10 to 20 years with no other guarantee in its hand than the conviction that the borrower is an honest and capable agriculturalist and that for the time being the margin between his 'gross income' and unavoidable expenditure leaves sufficient room to repay principal and interest."

The existence of the power to foreclose was no doubt seen as serving to re-inforce a lenders influence over policies of an enterprise in difficulties, which influence, if exercised sufficiently early, might anticipate difficulties and protect the viability of the enterprise. The security coverage sought by the different Development Finance Institutions varies considerably but a large number demand tangible collateral valued at twice the amount of the loan.

At time of its establishment in July 1967 the Papua New Guinea Development Bank was confronted with a situation where only a minute fraction of the alienated land in the country was owned by its indigenous citizens.

As well, legislative deficiencies and simple lack of manpower combined to make it impossible at the time for Government, through Department of Lands, to make any impact on rationalisation of land tenure.

The then unpalatable fact had therefore to be faced that if the Bank wished to make loans to the indigenous people for agricultural development and thereby encourage their participation in the economic growth of the country, a flexible policy had to be adopted which accepted (albeit reluctantly) the present form of land tenure i.e. loans would have to be granted for development of clan land. To add to the complexity of the situation it was known that the great majority of applicants for loans to develop clan land would have little, if any, formal education and no previous involvement with a lending institution.

In seeking to overcome these very real constraints to lending for agricultural development in P.N.G. the Bank was encouraged by the wording of its Act which sets out clearly the basic policy to be followed:-

"It is the duty of the (Bank) within the limits of its power, to ensure that the policy of the Bank is directed to the greatest advantage of the people (of P.N.G.) and has due regard to the stability and balanced development of the economy and advancement of the indigenous population."

With regard to security, section 9(1) of the Bank's Act states:-

"In determining whether or not finance shall be provided for a person the Bank shall have regard primarily to the prospects of the operations of that person becoming or continuing to be successful and shall not necessarily have regard to the security available in respect of that finance."

"Advancement of the indigenous population" and "prospects of success" were not taken as licenses to throw sound banking principles to the wind; to do that would have been a disservice to both the country and the borrower. Rather they were accepted as a challenge to adopt lending policies both suitable to the existing environment and of sufficient flexibility to adapt to the change to this environment which must inevitably follow.

It can be argued that clan land shares in varying degrees all except one of the attributes of land with legal title; its location and boundaries can be identified and easily mapped, and with patient, skilled investigation its usage rights can be established.

It is not, however, effectively transferable, at least not with any assured degree of permanency.

As a substitute for legal title the Bank devised what it calls a "Clan land usage agreement" which although not qualifying as collateral, does partially overcome the problems relating to continuity of land usage rights by improving the chances of a borrower remaining in undisturbed possession and thus enhancing the prospects of success of the venture. The clan land usage agreement is not registrable as a mortgage, nor does it give a charge over the land within the terms of the Land Act.

However despite its lack of legal standing it serves a most practical and useful function.

The form allows for the description of the land on which the applicant proposes to undertake his project and states that it is the unanimous decision of the clan that the stated usage rights belong to the proposed borrower.

The form is signed (or marked) by the clan leaders and witnessed by a Bank Officer or Agent to certify that the signatories/marksmen are in fact entitled to give such assurance and that it represents the genuine attitude of those concerned.

To support the clan land usage agreement, the Bank insists on a loan being supported by a number of guarantors, such people do not necessarily be of sufficient financial substance to repay the loan in the event of default, but rather to be members of the same clan as borrower, who could be expected to influence him to properly work his project and HONOUR his obligations, and in an extreme emergency (incapacitation of borrower) be acceptable to the clan as people who could take over management of the project and carry it through to fruition.

"To establish an equity in the project where borrower has no cash (or very little) to contribute, the Bank accepts certain initial developmental work carried out by borrower and his

clan, at no cash cost to the project, and prior to release of loan funds, as having an equity value e.g. clear land, drainage, fencing and such like.

This is referred to as "Sweat Equity."

In some instance organised marketing institutions have been of assistance in deducting loan instalments from proceeds of sale of borrowers produce (copra, oil palm, cocoa and cattle) and remitting them direct to the Bank. This relieves the borrower of the worry of having to meet a repayment deadline.

As can be seen, in the absence of collateral, it has been necessary for the Bank to rely on the other ingredients in successful lending which can be summarised as:-

- (a) Evaluation of the project as economically viable' i.e. is the scope of the project reasonably within borrowers ability and experience? has he demonstrated a willingness and capacity to work? does he understand his obligations as to proposed development and repayment? - has he a record of integrity?
- (b) Borrowers must have a meaningful equity (if not cash then sweat equity).
- (c) Adequate extension services to supervise the development are required.
- (d) Tight control must be exercised over disbursement of loan funds.
- (e) Determination and ingenuity is needed in collection of repayments."

While the success achieved to date using these methods has been remarkable, it is considered that in the long term, some form of legal ownership or licensing of clan land in P.N.G. is essential. It would simplify lending, reduce the

source of loan funds (presently confined to the Development Bank) and facilitate the funding of larger more long term projects.

The P.N.G. Government, long recognising the problem, has recently moved to adopt legislation designed to encourage clans to apply for issue of a form of registrable title to their land.

The title is called a "Special Purposes Lease" which is an arrangement whereby, on request of the Clan, Government Officers survey and map the land in question and carry out a thorough investigation to clearly establish ownership. The lease is then issued for a specified period (say a period from 10 to 30 years) usually to a legal entity formed from the traditional owners of the land.

At the time of issue of the lease a cash "grant", equal to the assessed unimproved value of the land, is made available to the traditional owners to defray their development costs. This "grant" is then recovered by Government by a lease of the form of annual rental over the term of the lease. The intended procedure is for the traditional owners of the land to obtain a special purposes lease and grant and approach a lender to provide balance of development costs.

The advantage to the clan of a special purposes lease is that unlike other forms of land alienation the clan never loses its real ownership of the land i.e. on expiry of the lease, it can, if the traditional owners so decide, revert back to clan land.

This procedure, though presently in its infancy, is regarded as a necessary first move in the direction of overcoming what is recognised as an essentially long term problem of rationalisation of land tenure in P.N.G.

The term loan is the most common form of development bank funding, but hire purchase financing and equipment finance advances are a common part of its lending activities. In addition the bank can also take up equity positions, underwrite bonds or special issues, as well as guarantee loans or

advance money to other institutions for on-lending. In the process, however, the bank's participation must be limited so that total outstanding to any single enterprise does not exceed 25 per cent (10 per cent for equity investment) of the bank's capital and reserves now in the case of foreign enterprise allow these advances to exceed 25 per cent of the borrower's paid-up capital.

The actual interest rates charged vary considerably depending on the size and type of advances as well as the purpose for which the monies are intended. Understandably small loans for agricultural development receive not only the bank's first priority in attention but also in the interest rates charged. Small loans for these purposes (K1,000 to K10,000) range from around 8 to 11 per cent reducible: generally at the lower rate. For larger amounts (over K10,000) the actual rate is determined at a margin of 0.5 per cent to 1.5 per cent below what a commercial bank would have charged the loan in question. After this is calculated, such factors as the project's ability to service the loan and its total income generation are considered before setting the actual margin: newer developments generally receive first preference. Commercial and industrial loans have a similar, though slightly less generous, policy for larger advances while smaller commercial and industrial advances are made at 9 per cent reducible. Term advances range up to 12 or more years in maturity and will often include an interest only "grace period" over the initial years. Hire purchase and equipment financing rates are set regardless of purpose with 6 per cent flat (below K10,000) and 7 per cent flat (K10,000 plus) for hire purchase, and 11 per cent and 13 per cent reducible respectively for equipment finance. These may be granted up to maturity of 36 months. The bank can also advance funds to joint PNG - foreign ventures as well as solely foreign owned companies at slightly higher rates: 8 per cent flat for hire purchase, 15 per cent reducible on equipment finance, and term advances at a maximum of 0.5 per cent below market.

One difficulty for the bank is often the time and cost involved with processing loan applications especially smaller loans. At one time the processing time from application to the approval and receipt of money averaged around six months: hardly much encouragement to the prospective PNG entrepreneur. Administration procedures have since been streamlined to reduce this time and in late 1976 a so called "mini loan" approval scheme was established to provide timely financial assistance to applicants wishing less than K1,000. Now borrowers, who will agree to its 8 per cent flat interest rate and a repayment period of 24 months or less, can receive an answer almost on the spot. This instant service has been important in reducing processing costs as well as allowing the more rapid handling of other applications.

Another method of encouraging local participation in the economy and shifting the ownership of productive assets from foreigners to Papua New Guineans is a plan under which national employees of foreign owned enterprises are encouraged to purchase certain pieces of equipment to sub-contract to their employer. This has been particularly successful in transport industry and with heavy construction equipment as it has allowed the local worker to move from an employee to a sub-contractor - one's own business - status.

One of the problems with commercial lending especially in the rural areas is the "follow the crowd" syndrome of many potential Papua New Guinean entrepreneurs. The ownership of a truck or being otherwise engaged in commercial activities has far greater status than a more simple agricultural pursuit. Thus once one fellow begins a trucking business and is successful, often the bank is flooded with loan applications from everyone else. So to protect the bank's own investment as well as the financial health of the community, the bank often has to limit the number of new entrants to the size of market especially in transport, retailing, building and construction, road construction, and road maintenance.

As one of its information booklets explains to prospective borrowers, the development bank is different from normal banks in that "you cannot open a pass book or cheque account or deposit or withdraw as you do with other banks." Instead the bank was funded by annual grants (now discontinued) which were approved as part of the government's annual budget. Besides direct grants from the Papua New Guinea government and the cash flow from repayments, the bank, through the government, also received some more specialised funding through overseas agencies such as the World Bank's International Development Association and the Asian Development Bank. In addition to its normal development bank activities the bank has taken over the administration of two other specialised government lending programmes - the Ex-Servicemen's Credit Board (acquired 1 January, 1969) and the Native Loans Board (1 April, 1969) - and in return has been able to use the cash flow from these schemes' repayments to add to its own lending programmes.

In the field of Commercial and Industrial lending the bank very early realised that without some major initiative on its part it would be many years before PNGians would be in a position to take on commercial and industrial activities on a medium to large scale.

At the time, with the exception of the co-operative movement the few PNG entrepreneurs who were engaged in commercial ventures were generally confined to small trade stores (better defined as extended family buying clubs), transport, and building contractors (the latter small, usually labour only type contracts.)

The Bank appreciated the lack of management skills available and clearly foresaw the many difficulties in this field, nevertheless it was aware that if it was to play a meaningful role in the promotion of this sector it must gear itself adequately to this high risk lending.

To more effectively do this the Bank established a Project Promotions Division with a small staff whose task was to identify and develop projects.

In doing this the Bank recognised the primary need was not just to develop profitable businesses but rather to develop Papua New Guineans with the necessary talent to successfully manage such businesses, and has contended that while there are many and varied difficulties facing would-be entrepreneurs in this country, the major retarding factor to date has been lack of opportunity, not lack of latent talent.

From the outset there have been many successful expatriate controlled businesses which the Bank considered to be within the management capabilities of suitably trained and supervised Papua New Guineans and one of Project Divisions major considerations has been to assist wherever possible with the orderly transfer of such businesses into Papua New Guinean hands.

As well it is constantly on the lookout for new development opportunities and to this end maintains close contact with involved Government Departments and with the business community in general.

Import replacement is a consideration, particularly when it can be achieved by utilisation of locally available raw materials.

Under present policy, to be eligible for consideration as a project promotion a business should evidence theoretical profitability sufficient to meet cost of all establishment and supervisory inputs without increasing the cost to the consumer.

The procedure is that as a new project gets underway inputs costs are calculated and at time of implementation are charged as a fee against the business. Subsequent supervisory costs are treated in a similar manner.

In this way the administrative costs of project establishment and after care are paid for by the businesses which are the direct beneficiaries, thus achieving development without subsidisation.

To establish an owning entity a company is incorporated in which all issued shares are held by the Bank. (Share issue is minimal). A loan is then approved to cover cost of establishment/purchase of the business and provide the necessary working capital.

In the case of "owner/manager" size projects (the majority of project promotions) a carefully selected and trained Papua New Guinean is offered a contract of employment as Probationary Manager.

Providing the manager satisfactorily completes his probation (usually one year) he is guaranteed the option to purchase the business and supplied with the necessary loan finance to do so.

In all of its Project Promotions the Bank aims primarily at ownership and Management by Nationals. However it recognises that in some of the larger projects a measure of foreign expertise and capital is not only desirable, but essential to the success of the enterprise.

In the case of larger projects ultimate transfer of ownership usually takes longer, depending on type of business, loan funds outstanding, competence of intended shareholders/Directors to effectively monitor Management etc. etc.

To properly fulfil its function, Projects Division provides effective training to the businessmen under its care and as their competence develops, provides the opportunity to put that training to practical use.

It accepts a heavy involvement in day to day management and accounting functions of the particular business until the

Entrepreneur businessman is competent and confident to accept his full role.

Such supervision is provided by Bank staff for at least as long as the Bank retains a financial interest in the business.

The success achieved in the Project Promotional field can be gauged from the following:-

<u>Businesses Established:</u>	Over 80 trade stores and snack bars
	Printery
	Rent a Car Company
	Joinery Works
	Customs Clearance/Freight Forwarder
	Soft Drink Factory
	Industrial Cleaners

As well the Bank has extended Project Promotions into rural areas and has established three large scale cattle ranches, two of them in remote, isolated and previously undeveloped regions of PNG, and a large scale piggery on the outskirts of Port Moresby.

Perhaps the most ambitious project, and certainly the most interesting of the bank's Special project ventures, is the "Street Pasin Stoa" scheme. Under this programme the bank has established a chain of retail stores - grocery and general items - and a training school for new managers. PNG nationals wishing to become managers may enroll to undergo a special course run by the bank. If completed successfully they are appointed as managers of stores which the bank has purchased in its own right. After a trial period of from one to two years, if the manager has proved successful and the store profitable, arrangements are made for him to purchase the store from the bank.

The store is not just sold by the bank; rather the new owner and PNGDB staff continue to maintain a close relationship in many ways. Through its "Retail Management Service" for

example, the bank through one of its subsidiary companies provides the new owner with a full accounting/taxation service as well as other management services as needed: this not only helps the owner but also helps safeguard the bank's interests. Operating as part of the Stret Pasin Stoa chain, the local manager also gains economies of scale in buying power and advertising.

To conclude, the following brief statistics illustrate what PNGDB has so far achieved with its Projects Promotions:-

Total Project loans approved to 31/5/80	K 8.69 million
Total equity investments	0.73 "
	<hr/>
	K10.42 "
	<hr/>
Total Project loans currently O/s	
- Rural loans	K 0.65 million
- Commercial & Industrial	2.27 "
Total current equity investment	
- Rural Loans	0.13 "
- Commercial & Industrial	0.60 "
	<hr/>
	K 3.35 "
	<hr/>
Total annual sales being achieved by Project businesses approx.	K30 million
Approx. returns to PNGDB (fees, dividends, interest)	K 0.56 "
Approx. cost of operating Projects Division	K 0.20 "
	<hr/>
Approx. net return to PNGDB	K 0.36 million
	<hr/>

(S.A. REID)

MANAGER OPERATIONS DEPARTMENT

3rd June, 1980.



Papua New Guinea

DEVELOPMENT BANK

Reply Managing Director

Ref..... SAR/rh.....

Head Office:
 Development Bank Building,
 Waigani
 P.O. Box 6310, Boroko.
 Telex 22295 DEVBANK
 Telephone 259255

Mr. V. Kumarasamy
 U.N.I.D.O Consultant to the
 Government of PNG
PORT MORESEY - NCD


28 July 1980

Dear Sir,

This is to confirm the Papua New Guinea Development Bank's interest in, and commitment in principle to, the establishment of an Industrial Estate complex to be sited at Gerehu in the National Capital District for the promotion of Nationally owned and operated small to medium scale manufacturing industries.

Tentative plans are for the proposed development to proceed as a Bank sponsored project: the necessary funds to cover total establishment costs are available and the required land has been reserved.

Yours faithfully,


 (M. G. IANNELO)
MANAGING DIRECTOR

HORNIBROOK CONSTRUCTIONS PTY LIMITED

REGISTERED OFFICE: SPRING GARDEN ROAD, HOHOLA, PORT MORESEY, P.N.G. PHONE: 252000

P.O. Box 1896
Brook

WR:vmg

21 July 1980

Mr V. Cumarasamy,
UNIDO Consultant
to the Government
of Papua New Guinea,
PORT MORESEY

Dear Sir,

Further to our various discussions on your idea on small service industries to be established by national businessmen to supply larger companies with various components and requirements, we comment as follows.

(1) We believe that the idea has merit, but will only work if the larger companies, or so-called sponsors, are involved from the feasibility study stage of the project right through to the implementation as well as in the operations of the business for a period of time.

(2) This could be carried out on a fixed fee basis for a number of years, the fees being fixed to turnover and profits achieved by the individual service industry to ensure that the sponsor organisation will develop the service industry efficiently. In other words, to give them an incentive to build up the service industry both in turnover and profit.

(3) The detailed arrangement of these fees can be looked at later as long as the basic principle is adhered to and the fees are sufficient to make it attractive to both parties involved.

(4) The involvement of the sponsor company in the various service industries will depend on the complexity of the operations. It could vary from quite a short period to, say, two or three years. Again, this will have to be assessed in each individual case.

As far as our company is concerned, we would be prepared to investigate the following service industry in more detail to come up with profitability of the ventures we are suggesting.

(A) Machine Shop:

This could be set up initially with a lath, threading machine and, possibly, a planer in a building which would be approximately 10 m x 10 m, with provisions made for extensions at a later date. Initially, we believe we would have enough work to make this venture reasonably attractive to a national businessman. We do, however, believe that to make the venture profitable one, other work in this line would have to be found from other companies. The amount of work available from other companies would have to be studied in more detail and will have to be done in conjunction with the sponsor.

.2.

feasible that the volume of work available from other companies would make this quite a good proposition with quite a large scope to extend the shop into more detailed and sophisticated machinery work in small and easy stages.

This shop could well be set up in the estate you have in mind at Gerehu.

(B) Reinforcing Steel, cut bent and tag

This particular venture would consist of fabricating stock length reinforcing bars into the various shapes required in concrete structures, i.e. buildings, bridges and wharfs. It would involve the setting up of a covered shed approximately 10 m span x 20 m long, providing one or two bar croppers and one or two bending machines. It would also involve the stocking of reinforcing steel in stock lengths which we would be prepared to supply as consignment stock to cut down on the initial investment. For this reason and also for technical reasons, it would be better if this venture was set up near our fabrication shop.

At the moment we are carrying out this work ourselves in our workshop and we only carry out our own work for building sites in and around Port Moresby. We also do some work for other contractors on a smaller scale. We believe that this venture could well be a proposition and would be prepared to look into this in greater detail to come up with a feasibility study.

Obviously, these studies will take some time and effort on our part and we do not want to go into this without some undertakings that we are not wasting our time. If we have a definite approach from a Government Department or Development Bank with some firm undertakings, we could put the time and effort into both projects to develop them both in full with initial establishment and a planned expansion program over the next few years. We are familiar with this type of work and can cite as an example a joint venture project we have undertaken at Arawa between ourselves and a local group on Bougainville Island.

We look forward to your reply on the above, but will not go any further at this stage.

Yours faithfully,
HORNIBROOK CONSTRUCTIONS PTY. LIMITED



W. RASPOTNIK
MANAGER

PAPUA NEW GUINEA
DEVELOPMENT BANK

Reply Managing Director
Ref....SAR/rh.....

Head Office,
Development Bank Building,
Waigain,
P.O. Box 6310, BOROKO.
Telex 22295 DEVBANK
Telephone 259255

24 July 1980

Mr. W. Raspotnik
Manager
Hornibrook Constructions Pty. Limited
P.O. Box 1396
BOROKO - NCD

Dear Sir,

RE: YOUR LETTER OF 21ST JULY TO MR. V. CUMARASAMY

Before providing specific comment on issues raised in your letter it might help you to better understand our position if we give you a brief outline of how the Development Bank first became involved in project promotion.

When the Bank was established in July 1967 the range of National entrepreneurs was found to be confined generally to small trade stores, transport operations and building contractors, and it was quickly realised that without some major initiative on our part it could be many years before they would be in a position to take on commercial and industrial activities on a medium to large scale.

As a first step towards overcoming the problem, we set up a Project Division with the task of identifying and promoting business opportunities suitable for National Management (and ultimately ownership).

In doing so we recognised the lack of management skills available and realised that if we were to achieve any measure of success in developing National businessmen an element of training would have to be added to the usual supervised credit facility.

A Projects Division was therefore established which has now been functioning over five years in which time it has promoted:-

- over 80 trade stores/snack bars throughout P.N.G.
(includes Gerehu Supermarket)
- Printery (Mabamo Press)
- Rent a Car Company (Nationwide Rent a Car)
- 2 Joinery Works
- Customs Clearance/Freight Forwarder

- 2 -

- Soft Drink Factory
- Industrial Cleaners
- 5 large cattle ranches (in Morobe, Southern Highlands and Northern Provinces)
- 300 sow piggery breeding/fattening unit (Port Moresby)

In cash terms our investment in these projects totals in excess of K7 million, and the combined annual sales of all enterprises already exceeds K30 million. We have not yet had a business fail.

Coming now to your letter's comments (1) to (4):-

- (1) We agree.
- (2) We agree and should here make the point that in establishing Projects Division the Bank has sought to ensure that it was self sufficient i.e. commercial fees are calculated and charged to the various businesses promoted to cover the total cost of all inputs, which means that the businessmen being helped, pay for the assistance provided, and no subsidy, hidden or otherwise is involved.
- (3) We agree.
- (4) We agree.

So far as the two service industries mentioned are concerned, the Bank is prepared to provide, by way of loan and equity funds, their total establishment and operational cost, subject of course to production of feasibility studies illustrating acceptable prospects of economic viability, and subject to the availability of the necessary skilled work force (i.e. tradesmen). From what you have written we agree that the "Machine Shop" would seem suitable for inclusion in the proposed Industrial Estate at Gerehu, with the Steel Fabrication unit being located near to your existing workshop.

One final comment: should this undertaking of the Bank encourage you to commit staff to preparation of the necessary feasibility studies, the relevant cost would be accepted as a first charge against any loan which might eventuate (i.e. your full costs would be re-imbursed if loan was approved).

Your further advice would be appreciated.

Yours faithfully,

(S.A. REID)
MANAGER OPERATIONS DEPARTMENT

W.R. CARPENTER (PNG) LIMITED

PO Box 105 Port Moresby Papua New Guinea Telex Camohe NE23035
 United Church Building Douglas Street Port Moresby Telephone: 211344



MCB/jhs

23 July 1980

Mr. V. Cumarasamy
 Division of Industrial Development
 Department of Labour and Industry
 P O Box 5644
BOROKO....PNG

Dear Mr. Cumarasamy,

Further to our discussions last week I would confirm the following points:

1. Should a local industry be set up to produce domestic plastic ware for kitchen or bathroom we would expect to be able to purchase at least K50,000 worth of these products at wholesale prices, provided the design and price are reasonably competitive.
2. We would consider taking a lease from the Government on industrial land for the purpose of industrial estate development. Acceptance of land for leasing would depend upon physical criteria, e.g. suitability for building, services available, location and of course cost.

On this land we would be prepared to build, awaiting suitable tenants, two small buildings say of 2000 - 2500 sq.ft. for each. As and when these are leased then we could build further.

We would be prepared to publicise the availability of these buildings.

Eventually we would anticipate, providing title to the land could be given, that we would sell back to the leasing companies the buildings which they occupy.

We would of course expect in the initial stages to exercise some control over the choice of industries and tenants.

Yours faithfully,

M. C. BENDALL
MANAGING DIRECTOR

WESTERN HIGHLANDS DEVELOPMENT CORPORATION LIMITED

P.O. BOX 924,
MOUNT HAGEN
Papua New Guinea

Telephone 521897
521829
521562

11th July, 1980

Our Reference:17.71

The Assistant Secretary,
Division of Industrial Development,
Dept. of Labour & Industry,
P.O. Box 5644,
BOROKO.

Attn: Mr. V. Cumarasamy

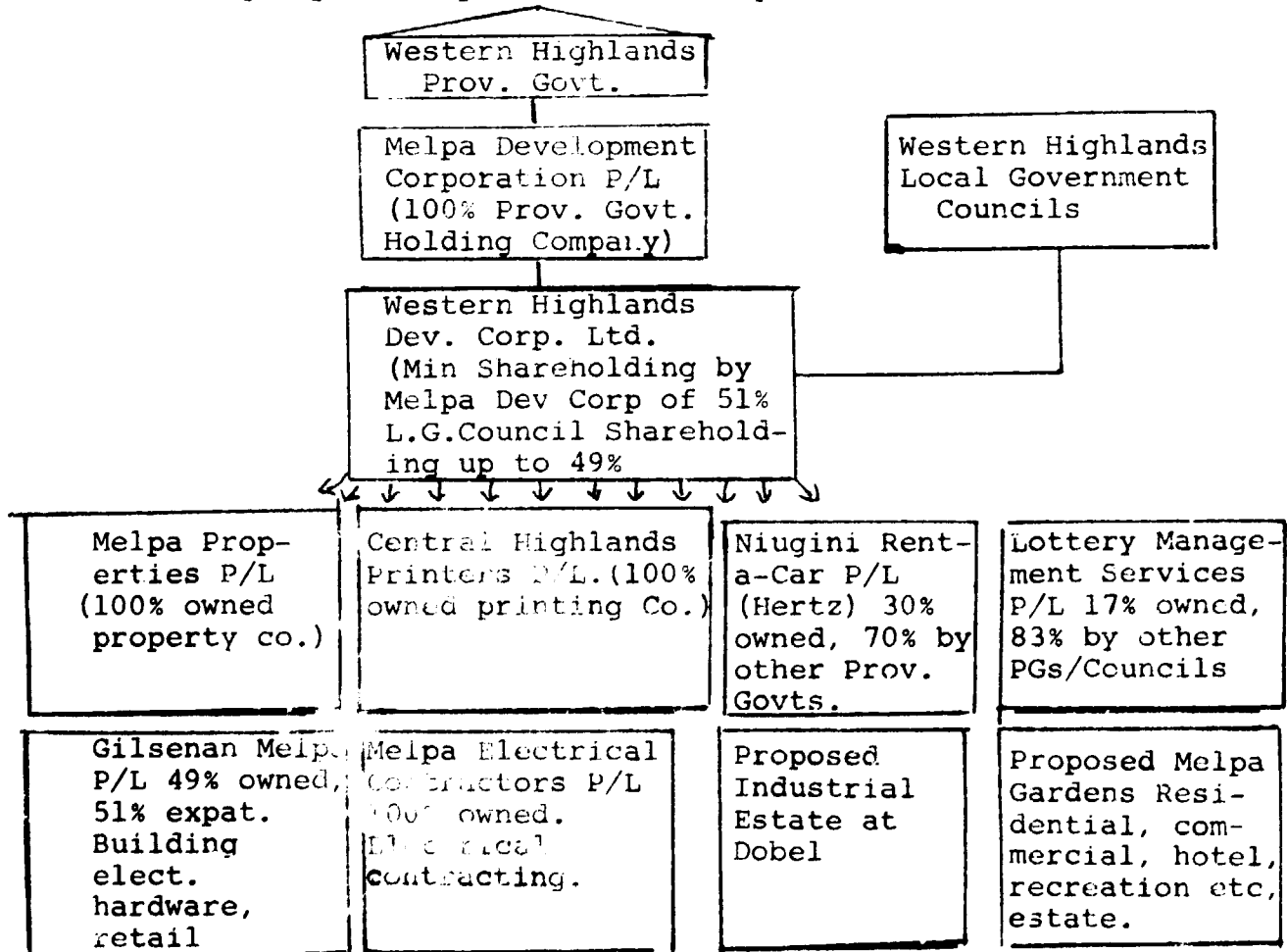
Dear Sir,

PROPOSED 10 HECTARE INDUSTRIAL ESTATE FOR THE TOWN OF MT.HAGEN

Reference discussions with Mr. V. Cumarasamy during his visit to Mt. Hagen and also in Port Moresby.

1. STRUCTURE OF THE WESTERN HIGHLANDS DEVELOPMENT CORPORATION

The Western Highlands Development Corporation Limited is the public company investment arm of the Western Highlands Provincial Government. Its prime objective is to promote development within the Western Highlands Province, both as an investor and as a catalyst. The structure of the corporation and its group of companies is briefly as follows:-



South Pacific Coffee Pty Ltd (Joint venture with other PGs and coffee growers) Proposed instant coffee factory. Proposed vegetable growing & processing. Part ownership with growers, etc.

The Western Highlands Development Corporation Limited has been funded by share and loan funds provided by the Western Highlands Provincial Government through the holding company, Melpa Development Corporation Pty Ltd, and also shareholding by local government councils of the Western Highlands Province. Total funds made available from these sources to date are K819,200.

The present investments of the Western Highlands Development Corporation are as follows:-

Melpa Properties Pty Ltd (100% owned property company)

- Existing - 6 intermediate cost staff residences for the W.H.D.C. group of companies.
- Under Construction - Hagen Plaza shop and office complex valued at approximately K600,000 with loan funds available from the PNG Development Bank.
- Future Plans - Town House residential complex.
- Industrial Estate at Dobel
- Residential, Commercial, Hotel, Recreational complex on Mt. Hagen Golf Course estate.

Gilsenan Melpa Pty Ltd (49% shareholding by W.H.D.C.)

This business is an established company heavily involved in building construction, sheetmetal, plumbing, electrical contracting, supply of hardware, building supplies, electrical goods, hi-fi, radio, cassettes, etc. As of 1st May, 1980 the operations of 100% WHDC owned Melpa Electrical Contractors Pty Ltd have been transferred to Gilsenan Melpa Pty Ltd.

Central Highlands Printers Pty Ltd (100% owned printing Company).

This is a new business established by W.H.D.C. in 1979 and provides commercial offset printing services in the Highlands.

Niugini Rent-A-Car Pty Ltd (30% shareholding by W.H.D.C.)

The balance of shareholding is held by other provincial government development corporations and 10% by Hertz Australia. The company is the Hertz Rent-A-Car licensee in Papua New Guinea.

Lottery Management Services Pty Ltd (17% shareholding by W.H.D.C.)

The balance of shareholding is held equally by Provincial Government Development Corporations from Eastern and Southern Highlands, Chimbu and Madang Provinces and the Port Moresby City Council. The company operates the Win Mond Lottery which commenced in the above provinces in February, 1980.

The objectives of the Corporation are to become actively involved in development of new industries, businesses and agricultural projects in conjunction with other groups, companies and individuals. As such, the developments will create employment in the urban and rural areas of the Province and promote spin-off activities and businesses. Overall, the economy of the Province should increase as the developments come to fruition.

2. DEVELOPMENT OF THE INDUSTRIAL ESTATE CONCEPT

The concept was evolved in 1978 by the Town Planning Section of the Dept of Lands in Mount Hagen. Because of the lack of industrial land in the town of Mount Hagen, the Lands Department in 1972 reclaimed a coffee plantation at Dobel on the Highlands Highway some 6 kilometers from Mt. Hagen town and rezoned it for industrial purposes. The plantation was sub-divided into 16 portions varying in size from $\frac{1}{2}$ hectare to 10 hectares. To date leases have been granted over 8 portions as follows:-

Portion 838	Coffee Factory	2.4 hectares.
Portion 840, 841, 843, 844	Government stores	1.7 hectares.
Portion 849	British Petroleum Fuel Depot	1.8 hectares.
Portion 842	Plantation Supply & Service Bulk Store	2.0 hectares.
Portion 892	ENG Electricity Commission Sub-Station	2.1 hectares.

Refer Department of Lands Noting Plan 77 Dobel, Milinch Hagen, Fourmil Ramu. A photocopy of the Plan with the proposed Industrial Estate is attached.

To speed up the allocation of industrial land to prospective lessees, the Provincial Town Planner, in conjunction with the Western Highlands Development Corporation (Melpa Development Corporation) recommended that the Corporation be granted a Town Sub-Division Lease over Portion 904 "DOBEL" under Section 73 of the Land Act. The Provincial Town Planner prepared a draft design (attached) of the proposed sub-division including 24 industrial allotments varying in area from $\frac{1}{4}$ to 1 hectare. Application for a Town Sub-Division Lease over Portion 904 was then made by the Corporation and a Lease recommended by the Western Highlands Province Land Board No. 1208 in October 1979.

The recommendations of the Land Board now await the approval of the Minister for Lands, Surveys & Environment for the granting of the Town Sub-Division Lease to the Corporation.

Upon granting of the Lease, attention will then be given to the following matters:-

- a) A detailed Town Sub-Division Design is to be prepared by a registered surveyor and submitted to the Surveyor General for approval. Engineering plans for drains and roads are also to be prepared and submitted

	K600 (est)
	K1000 (est)
- b) Upon approval by the Surveyor General of the design, a physical survey of boundaries is to be conducted and submitted to the Surveyor General.

	K3000 (est)
--	-------------
- c) Portion 904 is already serviced by 3 phase electricity. Additional supply lines may be required as well as a transformer.

	K10000 (est)
--	--------------
- d) Engineering construction of 240 metres of sealed roads including kerbing, guttering and drainage is then to proceed at estimated cost of K150 per meter Length K36,000 (est)

The estimated cost of this work on the preliminary design of 24 allotments is	K50,600 (est)
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It is envisaged that the preliminary design may be amended to provide for fewer but larger allotments and less service roads. The number could be reduced from 24 to say 15. The prime object of the leases will be for industrial purposes however ancilliary buildings for staff accommodation, trade stores etc are a necessary requirement, particularly in regards to security and national staff accommodation.

The industrial estate will include the services of electricity, telephone reticulation and sanitation and garbage collection as these are already provided to adjoining developed portions. It is envisaged that the town water scheme (currently under construction for Mt. Hagen town) will not be extended to Dobel for up to 10 years and sewerage reticulation not be considered for at least 10 years. Water supply for the estate will therefore be rain water collected on each block from roofs into storage tanks. Water could be pumped from nearby Ganga Creek on the North-Eastern boundary of the estate for industries not requiring pure water. Sewerage disposal will need to be in septic tanks on each block.

The Provincial Government's main aim, through the Development Corporation, in developing the Industrial Estate is to speed up the allocation of land. To promote industrial development in the area it would possibly be worthwhile for the Corporation to construct a small number of basic design industrial buildings on fenced allotments complete with water storage, septic tanks, staff housing and with electricity and telephone services connected. Cost of each such developed block would be in the vicinity of K200,000. Each complex could either be sold to a business concern or leased to them. The Government would be requested to assist with any such development, possibly in the form of a guaranteed loan for construction of advance buildings in a serious attempt to attract industrialists.

3. NATIONAL & PROVINCIAL GOVERNMENT REACTION TO THE PROPOSAL

Both the National and Provincial Government should be in favour of the industrial estate concept as it will speed up the allocation of land and promote industrial development. The Western Highlands Provincial Government is keen on the Dobel Estate concept as well as the proposal to re-develop the present Mt. Hagen Golf Course Estate along similar lines for

residential, commercial, hotel and recreational purposes. I enclose copy of the Melpa Gardens development proposal ... under cover of W.H.D.C. letter 17.72 of 26/6/1980 to the Western Highlands Province Town Planning Committee. The Melpa Gardens development proposal is planned to commence at the end of 1981 with relocation of the Mt Hagen Golf Course at its new site at Kagamuga during 1981.

With the Dobel Industrial Estate and Melpa Gardens Estate proceeding somewhat simulataneously, Mt. Hagen will be able to provide investment and development opportunities for many levels of business, industry, commerce, residential and recreational requirements of the fast growing town.

It is believed the Industrial Estate concept will speed up and promote regional industrialization as a means of promoting industries and employment and utilizing available materials of the area to meet local markets. Industries such as furniture making, repair shops, food processing, cold storage and coolrooms, bulk storage, etc are envisaged, mabe initially with expatriate involvement in ownership and management of a number of the larger industries or businesses.

4. PROGRESS TO DATE

Until the Minister for Lands approves the granting of the Town Sub-Division Lease there has been and will be little progress made on the proposal. Once approval is granted and the lease issued, funds will need to be allocated by the Corporation for the cost of the design fees, engineering works, registration, legal expenses, tendering of available allotments, etc which should be in the vicinity of K50,000.

5. BALANCE OF PROGRAM FOR COMPLETION

Program for completion of the proposal is as detailed in paragraph 2 above and dependent on availability of qualified surveyors, engineers, road construction equipment and Electricity Commission and Telephone reticulation completion. Until all works are completed to the satisfaction of the Surveyor General, then it will be impossible for the Corporation to transfer allotments to leasees.

Upon completion of the necessary works to the satisfaction of the Surveyor General, all allotments will be advertised for tender and applications will be considered by a committee comprised of the Provincial Lands Officer, Secretary of the Department of the Western Highlands (or his delegate) and a representative of the Western Highlands Development Corporation. It is envisaged that maybe up to five allotments will be released in the first allocation of leases as demand for land in the immediate future is not considered as critical.

It is therefore envisaged that from the time the Minister grants approval for the Town Sub-Division Lease to the time when transfer of Title to Allotments is finalized and registered will be a period of 2 months if all goes smoothly.

6. CORPORATION'S EXPECTATIONS FROM ESTATE

Mainly to speed up land allocations in the Province to promote further development. Because of the present semi-development of the Estate area, it is not envisaged that development costs will be high and therefore the Corporation should recover costs after releasing say 40% of the blocks of land. Profits gained from the release of subsequent allotments can be utilized for development costs of other proposed estates sometime in the future.

7. REQUIREMENTS FOR SPEEDY IMPLEMENTATION

The main problem envisaged for speedy implementation of the Industrial Estate proposal is administrative procedures within the Dept. of Lands, Surveys & Environment. This is due mainly to the fact that there are very few records of similar estates on file and precedents set in the past would be most handy for Lands Officers to follow in this and future documentations.

8. PROMOTION OF NATIONAL ENTREPRENEURSHIP

It is considered that most of the major developments on the Estate will be by existing businesses in the Highlands area who wish to expand onto larger areas of land or open a new branch in Mount Hagen. The main interest expressed by National businessmen for land is for the purpose of trucking depots and

bulk stores. However, the promotion of other services such as repair shops, furniture manufacturing, etc can be emphasised once the estate is in operation.

If the Government wishes to promote National entrepreneurship or new industries, it may have to offer incentives such as rent free or rent reduced tenancies during the initial period of the industry. If such be the case then the Government would need to guarantee the Corporation its return on investment on the buildings. In order to reduce the period of guarantee, the Government would need to promote industrialization and thereby ensure that buildings are taken up.

To keep development and construction costs to a minimum, and subsequent Government guarantees to a minimum, it would be advisable to adopt low cost design buildings suitable to industry for advance building prospects.

9. MANAGEMENT OF THE ESTATE

It is considered that the Industrial Estate is too small to warrant setting up a management office purely for the Estate. However, such office would be beneficial if the industrial estate and Melpa Gardens Estate were to be developed simultaneously. Such office would then be responsible for the complete planning, financing, co-ordination and construction of each estate and the subsequent leasing and or sale of the blocks of buildings as well as the daily management of both Estates.

Provision could also be made in such management office to provide administrative assistance to National businessmen on the Estates in the form of accounting and managerial advice and services and to assist with negotiations in business dealing. If required.

10. LIKELY CANDIDATES FOR THE INDUSTRIAL ESTATE

The following firms or groups have expressed keen interest in obtaining land at the Dobel Industrial Estate:-

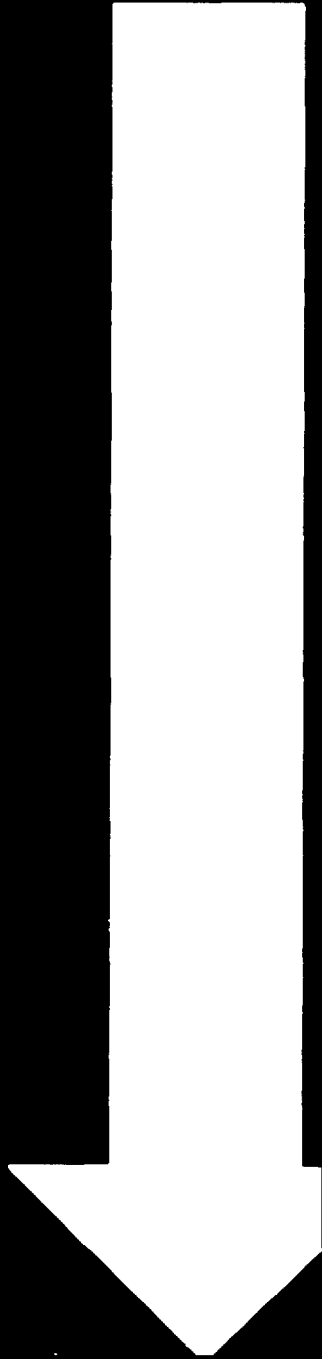
- Lama Sawmill of Ialibu - Timber yard to sell timber which is milled at Ialibu.
(100% National) 2 hectares
- Roadways (NG) Ltd - Road Haulage freight yard and truck depot. Roadways are the British Petroleum Agents in Mt. Hagen and would require to be located close to the BP Fuel Depot (Portion 849) Roadways is 100% Nationally owned. 2 hectares
- Foamboard Building Systems - Prefabricated housing construction. Presently located in short term leased premises in Mt. Hagen. Expat firm seeking Prov. Govt shareholding once business established. ½ hectare
- Traisa Trading Pty Ltd.- Road haulage freight yard and truck depot including services of vehicles and staff accommodation
(100% National) ½ hectare.

It has been suggested that with industrialization, particularly on a regional or provincial basis, if a Resource Centre could be tied in with Industrial Estates. Such Centre would be associated with the Bureau of Statistics and could supply information in respect of the Province or Region which would be of benefit to prospective investors. At the present time information on investment potential is totally lacking on a provincial basis. For instance a prospective investors. At the present time information on investment potential is totally lacking on a provincial basis. For instance a prospective investor seeking information on establishing an import substitution industry would wish to

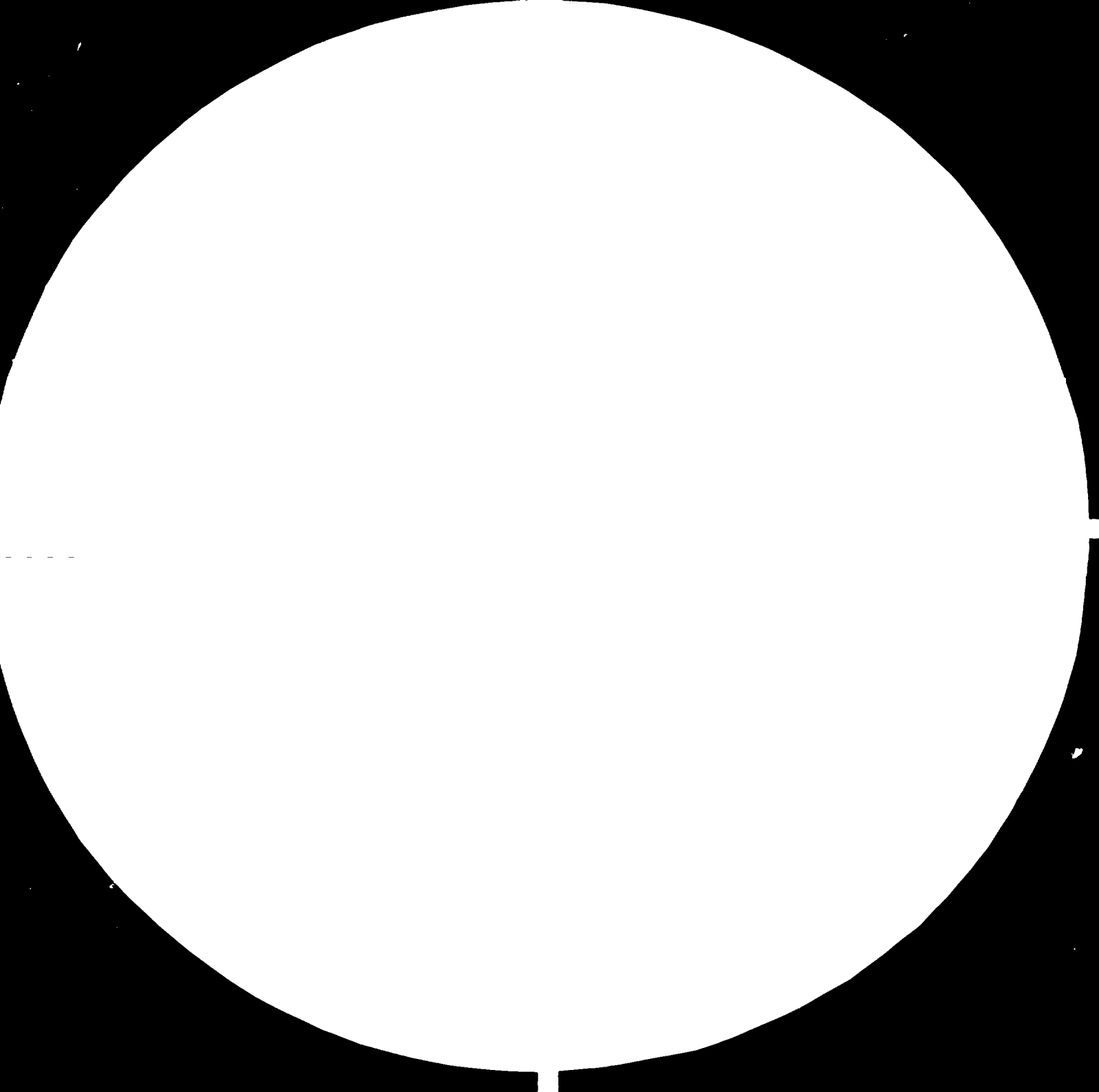
know the quantity of imports of a particular product and its landed cost, and similarly require to obtain sufficient information to calculate the cost of production including cost of labour, raw materials, freight, housing and factory rents, taxes, vehicle expenses, etc.

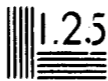
11. EXISTING INDUSTRIAL SECTOR IN THE HAGEN AREA (as known)

		ESTIMATED
<u>NAME OF FIRM</u>	<u>ACTIVITY</u>	<u>NATIONAL EQUITY</u>
Monier PNG Ltd	Concrete products manufacture	24%
Kagamuga Natural Products	Pineapple Factory	100%
	Potato Cakes	
Hagen Bottling P/L	Bottle Factory	100%
Plantation Supply/Service	Plantation Suppliers	?
British Petroleum	Fuel Depot	?
K.Paua Trading	Trucking	100%
Fresh Food Market Corp.	Food marketing	100%
Bindon Plantation P/L	Fuel Depot	100%
Wamp NSA Motors P/L	Garage, Workshop, Sales	100%
Ela Motors	Garage, Workshop, Sales	24%
Foamhead Build. Systems	Build. Housing	NIL
Hagen Kofi Pty Ltd	Ice Factory	100%
Central Highlands Printers	Printing Factory	100%
Glen Eildon Timber	Timber Yard	?
ATA Limited	Timber Yard	100%
ATA Limited	Building Construction	100%
ATA Limited	Road Transport	100%
PNG Highlands Freighters	Road Transport	100%
Hagen Hauliers	Road Transport	100%
AGK Pacific Pty Ltd.	Building Construction	10%
Wilson Electrical	Electrical Contract 7 Buildings.	-
Kiluwa Transport Pty Ltd	Road Transport	100%
Kaiwe Motors	Vehicle Repairs	100%
Ura Motors	Vehicle Repairs	100%
Kubor Winston	Civil Engineering	-
Pangia Construction	Civil Engineering, Build.	100%
Madaka Construction	Building Construction	75%



RIIIT





Resolution test charts are available from the National Institute of Standards and Technology, Gaithersburg, MD 20899. For more information, contact NIST at (301) 975-3000.



Gilsenan Melpa Pty Ltd	Building Construction, sheetmetal,electrical, plumbing, hardware etc.	49%
Jimi Earthmovers P/L	Road Construction	100%
CAP Machinery Pty Ltd	Road Construction	75%
TDE Pty Ltd	Electrical contracting	50%
Roadways NG Ltd	Road Transport	100%

Submitted for your information, please.

Yours faithfully,

Warren R. Bartlett
Managing Director.

cc The Secretary
Dept. of The Western Highlands
P.O. BOX 17,
MOUNT HAGEN.

Ganga Creek

838

Customary land

840

841

842

839

843

844

845

846

847

I.2

I.3

I.9

I.10

I.11

I.8

I.11

I.12

I.1

I.4

I.7

904

I.12

I.13

I.6

I.13

I.14

I.5

I.14

I.15

848

SECTION 1

849

850

842

KEY

Proposed new Cadastral
Boundaries

Length of new roads 240 metres
(centre line)

NOTES:

Subdivision provides 24 industrial
allotments. Development should
start at periphery of the site
that inner sites can be used for
expansion of existing sites if
necessary.

Blocks I.1 to I.4 could be further
subdivided if necessary.

Two or three trade store sites
could be provided if required.
Suitable sites would be part of
I.1 or I.5.

SCALE: 1 : 1500

BASE MAP: Dohel Rating Plan
Milling of Hazen
Fournival of Papua

TITLE
PROJECT SUBDIVISION
OF
PORTION 904 DOHEL
FOR
WESTERN HIGHLANDS
DEVELOPMENT CORPORATION LIMITED.

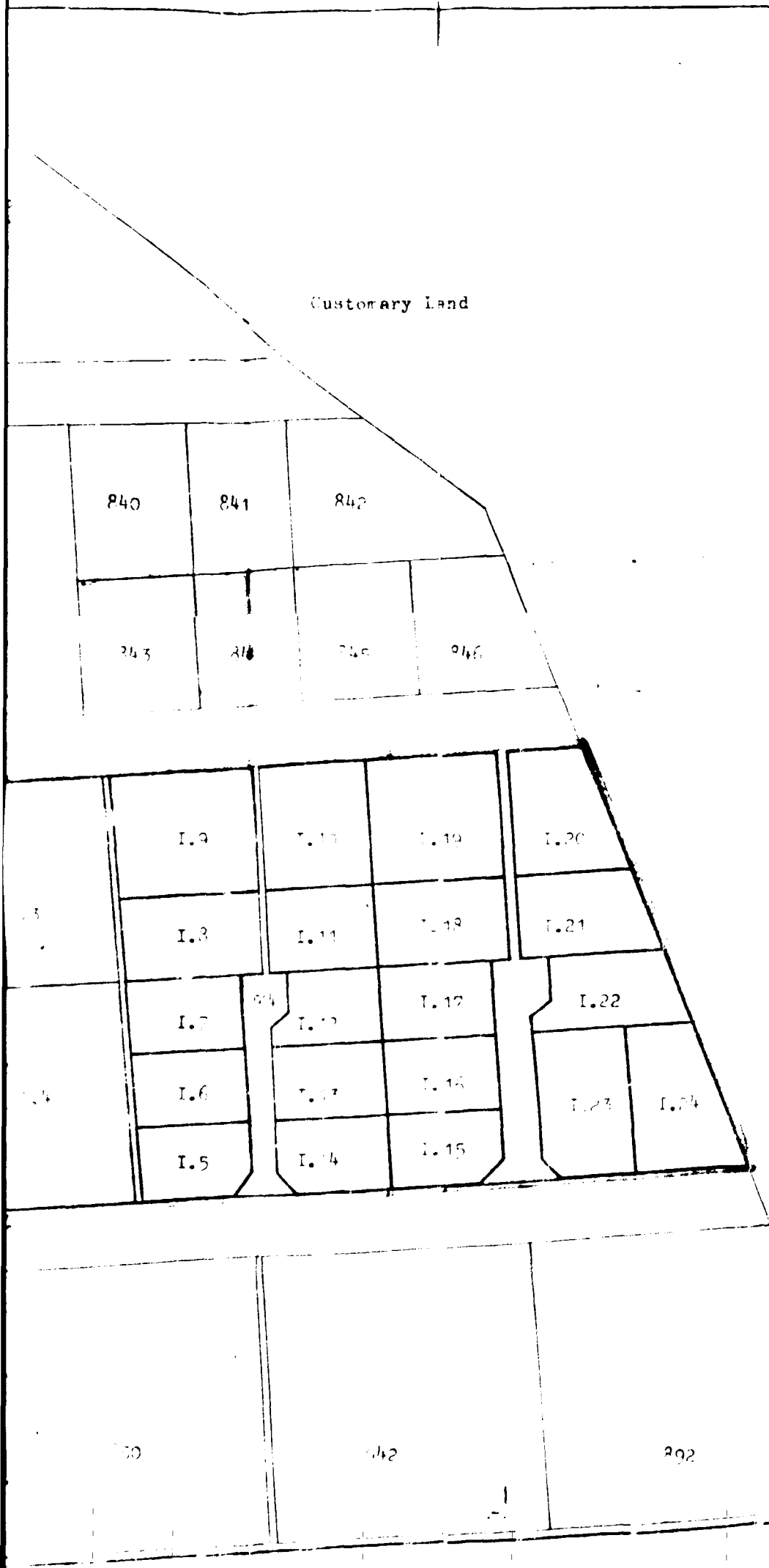
DESIGNED & DRAWN : G. J. Greenhill

Town Planning Section
Dept of Natural Resources
P.O. Box 5665, SCROCK
P.O. Box 201, MOUNT HAGEN

29th March 1978

SECTION 2

Customary
Land



Customary Land

Subdivision provides 24 industrial allotments. Development should start at periphery of the site that inner sites can be used for expansion of existing sites if necessary.

Blocks I.1 to I.4 could be further subdivided if necessary.

Two or three trade store sites could be provided if required. Suitable sites would be part of I.1 or I.5.

SCALE: 1 : 2500

BASE MAP: Dobel Rating Plan
Militia of Hagen
Journal of Papua

TITLE
PROPOSED SUBDIVISION
OF
PORTION 904 DOBEL
FOR
WESTERN HIGHLANDS
DEVELOPMENT CORPORATION LIMITED.

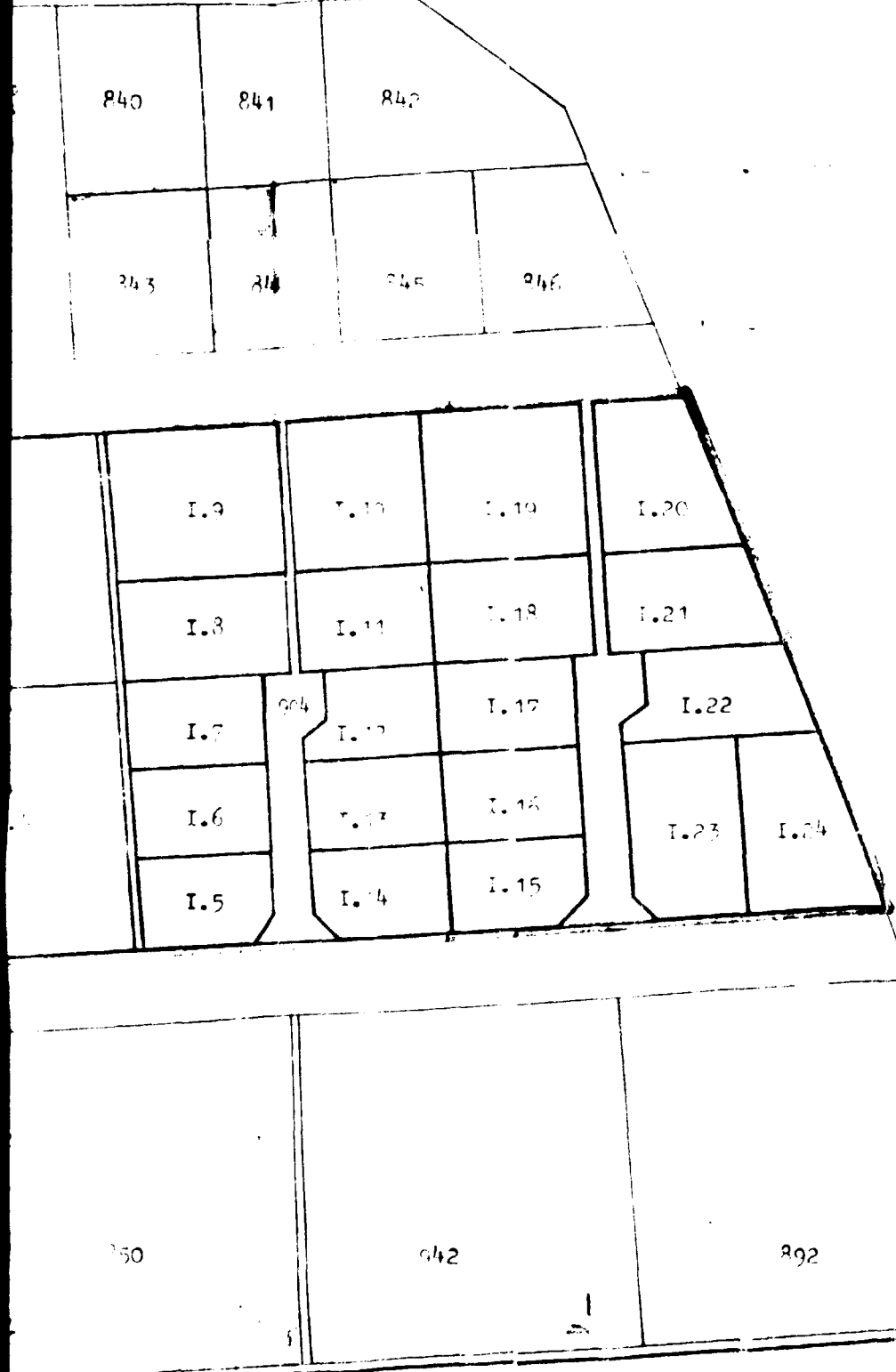
DESIGNED : C. J. Greenhill
& DRAWN
Town Planning Section
Dept of Natural Resources
P.O. Box 5665, BOROKO
P.O. Box 201, MOUNT HAGEN

29th March 1978

Customary
Land

To Kagamuga

SECTION 4



PROGRESS ON INDUSTRIAL PROJECT STUDIES - INDUSTRIAL DEVELOPMENT
DIVISION

DEPARTMENT OF LABOUR AND INDUSTRY

All references to periods mean studies were done
intermittently.

1. SECONDARY INDUSTRIES - DEMAND AS PRIORITY INDUSTRIES

1. Activated Carbon from Coconut Shell Charcoal

Prefeasibility studies being conducted for
past 2½ years and continuing.

Estimated Investment - \$2 million.

N.P.E.P. Request proposed for 1980

2. Agricultural Irrigation

Prefeasibility studies commenced 2½ years ago.
Carried out off and on. UNIDO Team carried
out survey in February, April, 1980.

Feasibility Study will be carried out in
October 1980. A number of locally based
companies have expressed interest in the
project.

3. Fuel Alcohol from Biomass Resources

Minerals and Energy took over project. After
2½ years. Pilot Plant proposed on Cassava.
Investment K250,000 - based on Cassava.

Prefeasibility Studies going on for Alcohol
and Vinegar based on Sugar.
Investment K2.5 million.

Minerals and Energy - Studying project for
Alcohol based on Nipa Sago Resources at two
places respectively.

- i. Gulf Province
- ii. East Sepik.

4. Essential Oil Processing

Prefeasibility studies for the past 2½ years
Feasibility Study to start in July 1980.
Investment K500,000.

5. Integrated Shipbuilding and Repair

Data collection stage has been pending for
a year for lack of funds. To commence
hopefully July 1980. Application for
funds made 1st Quarter 1980. Request
approved.

6. Dry Cell Batteries

Studies going on for 2½ years. Feasibility
Studies proposed to be undertake beginning
July 1980. Estimated Capital Investment
K2.5 million. Meanwhile, an Overseas
company is progressing with the Submission
of an Investment proposal.

11. SECONDARY INDUSTRIES - OPEN ACTIVITIES - PROCESSING
INDUSTRIES1. Fruit, Nuts & Vegetables -

Request for Technical information being
sought from various sources U.K., Singapore,
Taiwan, UNIDO, Australia, Scale of Operations
not identified yet. Assistance is being
given to a National company who are planning
to start the small scale canning of tomatoes.
Research is being undertaken into wet coconut
processing.

2. Spices

Prefeasibility Studies to be initiated if funds are made available. Planning an NPEP Submission 1981 which will include the subject.

3. Rattan

Concept of Project proposed to Provincial Government (4 months ago) February 1980. Submission for aid funding will be in July 1980. It is expected that project will be supported. Investment K500,000.

4. Canning of Imported Beef

Request for feasibility study submitted to Government in April 1980 for approval. Decision pending. Since then three companies have expressed interest in proposal and are conducting investigations. Investment K2 million.

III

SECONDARY INDUSTRIES - OPEN ACTIVITIES - MANUFACTURING INDUSTRIES1. Bandages, Plaster, Sanitary Towels & Wrappers

Project forgotten for one year for lack of staff

2. Bolts, Nuts, Screws, & Rivets

Study on at least for 5 years. Conflicting ideas on feasibility because scale of operations not identified. However an engineering company in PNG is confident of the projects feasibility and is contemplating investing. Investment approx. K250,000.

3. Cement & Lime

Project considered for many years.
Negotiations with various companies proved unsuccessful. Now looking into the establishment of bulk handling facilities as a first stage.

4. Ceramics

Identified as feasible in 1979. Pilot Project under establishment. Project behind schedule primarily because of UNIDO delays and now hoped to start in September 1980. Initial Investment K250,000.

5. Confectionery

No studies because of lack of staff.

6. Electric Wires & Cables

Studies delayed due to lack of staff. Might be taken up by an electrical retailing and repair establishment which have had several discussions with Department.

7. Explosives

No technical expertise to take up study.

8. Fertiliser Mixing

Studies delayed due to lack of staff.

9. Nets, Lines & Ropes

Studies delayed due to lack of staff.

10. Furniture and Other Wooden Goods

Consultancy from UNIDO - identifying problems of industry. Feasibility Studies will be completed in July 1980 and used to promote projects.

11. Garments

Feasibility Studies proposed end 1980. Some initial interest hopefully expressed by overseas companies. Small establishment will start producing in Chimbu this year as a result of Department's assistance.

12. Glass Household Wares

Studies delayed due to lack of staff. Might be taken up by glass bottling plant.

13. Injected & Blow Moulded Plastic Goods

Studies delayed due to lack of staff. Discussions have been held with a packaging manufacture who may start a blow moulding project.

14. Leather Shoes

Preliminary Market data collected. Availing information from one Foreign Investor.

15. Rubber Goods

Pilot manufacture of rubber thongs has been undertaken for many years. Department current investigation possibility of plant going fully commercial.

16. Banks

- Feasibility Studies being carried out for 5 years. Work with a national owned company have taken project for funding and machine sourcing point; Capital Investment K1 million.

17. Travel Goods (Bags & Suitcase)

Project being formulated in conjunction with a Foreign Investor and a local partner

18. Wood Veneer and Plywood

Studies going on logical location in association with a new or existing logging and sawmilling project.

19. Weaving of Cotton Textiles & Terry Towelling

Studies and promotional efforts for last 5 years. No Foreign takers because protection policy not clear and viability uncertain. Promotional efforts still going on.

20. Metal Founding

UNIDO assistant of status of industry commissioned by Department of Commerce. Department of Labour and Industry currently investigating market for founded goods in conjunction with a national company.

IV

SECONDARY INDUSTRIES - OPEN ACTIVITIES - ASSEMBLY & FABRICATING INDUSTRIES

1. Domestic Electric Appliances

Preliminary Studies made and assistance given to a national company who are considering investment.

2. Engineering & Metal Fabricating

One project successfully established in a decentralized location on basis of studies. Investment K50,000. Other potentials in decentralized locations have been identified.

3. Motor Vehicle & Tractor Assembly

After 2½ years study, proposal for Cabinet Sanction was prepared in December 1979 but yet to be submitted. Discussions have been held with several companies.

4. Sole Proprietors

Preliminary Studies done in 1979. One Foreign Firm invited. Showed interest at first. Dropped out later. Discussions have been initiated with an overseas Company already in Papua New Guinea.

5. Hand Reeling

No Feasibility Studies. Assistance has been given to a national company in the Highlands. Foreign investors participation has been sought.



