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ASSISTANCE IN PREPARING A WHITE PAPER
ON INDUSTRIAL STRATEGY AND POLICIES
SI/VAN/86/801
REPUBLIC OF VANUATU

Terminal report *

Prepared for the Government of Vanuatu
by the United Nations Industrial Development Organization,
acting as executing agency for the United Nations Development Programme

Based on the work of Earle A.S. Taylor,
expert in industrial strategy and policies

United Nations Industrial Development Organization
Vienna

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Explanatory Notes

References to the Government means the Government of Vanuatu unless otherwise stated.

Reference to \$ means United States dollars, unless otherwise noted.

A slash between dates (eg 1986/87) indicates a financial year.

A dash between dates (eg 1987 - 1991) indicates the full period involved including the beginning and end years.

n.a means the data was not available.

A dash (-) in tables indicates that the amount is nil or negligible.

Value of local currency = Vatu dollar = VT and during the mission in terms of United States dollars (\$) 1\$ = 102.56VT

The following abbreviations are used in this report.

BDU	Business Development Unit
DBV	Development Bank of Vanuatu
CARICOM	Caribbean Common Market
CFTC	Commonwealth Fund for Technical Cooperation
CIF	Cost, Insurance and Freight
DVA	Distributive Value Added
EDF	European Development Fund
ESCAP	Economic and Social Commission for Asia and the Pacific
FOB	Free on Board
FNDP	First national Development Plan
GDP	Gross Domestic Product
GNP	Gross National Product
GSP	General systems of preference, a facility offered by the United States and similar to LOME agreement.
IDTS	Industrial Development Training Scheme
NMDF	National Manpower Development Fund
ILO	International Labour Organization
SPEC	South Pacific Bureau for Economic Cooperation
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
VA	Value Added

Unless otherwise stated all actions identified in this report are assumed to be the responsibility of the Department of Industry and/or the Ministry of Industry and Commerce and/or Ministry of Finance, Commerce, Industry and Tourism.

ABSTRACT

The project SI/VAN/86/801 - Assistance in preparation of a White Paper on Industrial Strategy and Policies - was initiated by the Government of Vanuatu in September 1985. Its importance as a prerequisite for the draft of the

Second National Development Plan (SNDF) (1987-1991) emphasized the need for both urgency and skill in appraising the existing industrial structures and policies as well as formulating an improved strategy and supporting policies to enhance the islands' industrialization process.

In response to this request, UNIDO contracted the services of Earle A.S. Taylor, an expert in industrial strategy and policies for two months beginning May, 1986. A copy of this report together with the White Paper was presented to the Government in June. The main findings are summarized :

- a). Vanuatu's industrial development is still at the early infant stage requiring not only policies and strategies but institutional strengthening and support.
- b). The organization for industry is incomplete with serious deficiencies in manpower, structure and outreach.
- c). Infrastructure beyond urban Efate though improving is still inadequate and could be strained quite easily with a positive response to increased industrial promotion activities.
- d). Substantial investment will be necessary in training and manpower development in order to build up the commercial, industrial and entrepreneurial skill levels if industrialization is to proceed at pace and in the direction assumed by policy.
- e). The statistical base, both for industry and the general economy requires further strengthening if quality decisions, for national and sectoral planning are to be achieved.
- f). Finally, the management of foreign exchange and interest rates and the generally positive economic climate, despite severe reduction in foreign earnings is a quality which shows great hope for industrialization in Vanuatu.

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Preface

In the interest of clarity, this report is presented in two sections and five parts. Section one Part I gives the background to the industrial development project request and the project input - output profile. Part II gives a summary of the main findings based on the industrial development policy and strategies which supported the First Plan, and a set of specific recommendations.

In section two, Part I describes the main components of the methodology used in the assessment of the impacts of the industrial policy and strategies during the First Plan and provides the basis for developing a set of industrial strategies to support the Second National Development Plan. For implementation purposes, a technical note and example of estimating Value Added is included.

Finally, in Parts II and III, detailed findings, observations and recommendations are made based on assessments of strengths and failures of the strategy and programmes pursued during the First Plan. Specific recommendations are made for activities in which UNIDO and UNDP might be pursued for further assistance and the report ends with a brief concluding remark.

SECTION ONE

PART I

PROJECT PROFILE AND ACTIVITIES

A. Background

1. The Government of Vanuatu, 2 years after its independence from Britain in 1980, introduced the islands' First 5-year National Development Plan (FNDP) with projected expenditure of some 11.5 billion vatu over three main areas: Industrial infrastructure, social services and rural development.
2. The National Planning and Statistics Office in its mid-term review of the Plan in 1984 indicated that the industrial programme was tauted by several factors during the period. Fluctuating prices and markets for strong traditional exports like copra, slow take-off of the industrial sector, delays and short falls in development funds and the absence of a clear cut industrial policy were among the main contributors.
3. By means of the formulation, management and implementation of the industrial development strategy and appropriate policies the Government of Vanuatu intends to play a key role in the industrialization process. Strategy and policies formulation should therefore ensure that investments are channelled into areas which will contribute most to the effective utilization of national resource, socio-economic progress of the country and the development of a balanced and efficient industrial structure, supporting and complementing the other sectors of the economy. Special considerations are to be given to the problems and issues which are related to Vanuatu as a sovereign state and a small multi-island economy.
4. In pursuit of these objectives suitable policies in trade, finance, technology, manpower and energy can provide an effective support to industrial development and assist the economy in coping with problems and challenges which the country face.
5. The Government of Vanuatu will present its second National Development Plan (SNDP) early next year. In addition to data acquisition the review and formulation of industrial development strategy and policies is an important precondition for the planning exercise in the field of industrial development.

In view of the importance of elaborating the industrial strategy and policies in the form of a White paper within a short time, and the complexity of the nature of the work involved, the Government requested an expert to assist a professional team headed by a high level official from the Ministry of Finance, Commerce, Industry and Tourism.

6. Mr. Earle A. S. Taylor, an expert in industrial strategy and policies was contracted by the United Nations Industrial Development Organization in April, 1986 for two months with the following objectives :

B. Objectives

1. Development Objective

To contribute to the development of an effective and efficient industrial sector which will participate in achieving the country's socio-economic objectives.

2. Immediate Objectives

To assist the Government in reviewing suitable industrial strategies and policies for the effective promotion and development of the industrial sector, and in preparing a White Paper on industrialization policies for the Second National Development Plan.

C. Project Inputs

1. Government

- Professional team headed by a senior official from the Ministry of Finance, Commerce, Industry and Tourism.
- Secretarial support, adequate office accommodation, with necessary equipment and supplies, appropriate transportation facilities for inland field visits.

2. UNIDO

- Unido expert in industrial strategy and policies for two months in Vanuatu with briefing session in Vienna and Suva.
- Project travel and related expenses up to and from Vanuatu.

D. Project Outputs

1. A report appraising the current industrial strategy and policies with proposals for improvement according to the prevailing international, regional and national economic situation.
2. A draft White Paper on industrial strategy and policies for the Second National Development Plan.
3. A study listing industrial sub-sector priorities.
4. A draft plan for follow-up training in formulation, management and implementation of the industrial development strategy and appropriate policies for selected professional officials.

E. Project Activities and Expectations

1. Review existing Industrial structures, strategy and policies.
2. Identify industrial opportunities and resources, as well as the constraints and potential problem areas.
3. Assess the impact of past and present industrial strategy and policies so as to enhance the industrialization process.
4. Formulate proposals to strengthen the industrial strategy and policies so as to enhance the industrialization process.
5. Develop a priority list of industrial subsectors, based on sound economic criteria that consider the interactions between individual subsectors and each subsector on the marco economy.
6. Elaborate in the form of a draft White Paper the industrial Development Strategy and Policies that will form the basis for preparing the 2nd 5-Year National Development Plan.

7. Prepare and implement a two-day workshop on Industrial Development Strategy and supporting policies with full participation of decision makers in Government, industry and other critical institutions.

8. Elaborate the plan for follow-up training in the formulation and management of industrial development strategy and supporting policies.

SECTION ONE

PART II SUMMARY OF MAIN FINDINGS AND RECOMMENDATIONS

A. Review of General Objectives of FNDP

1. The objectives of the Industrial Plan for the Manufacturing sector during the period 1982 - 1986 emphasized essentially :
 - (a) the promotion of basic industries which process local materials.
 - (b) the encouragement of local entrepreneurs in the development and ownership of industrial activities especially small-scale industries.
 - (c) encouragement of import-substitution and export industries to improve balance of payments.
 - (d) the creation of jobs in rural and urban centres.
 - (e) establishment of sound basis for medium and long term industrial investment opportunities.
 - (f) stimulation of growth in selected areas and projects including coconut oil extraction , boatbuilding, cement manufacture, leather, beef and fish processing.

2. With respect to (a) & (c) sixteen basic industries were established. Their use of local materials was low and in the cases of the wood and wood product sector, Food and Beverage Sector, the performance was unsatisfactory. Value added remained still for Food and Beverage and only a slight increase for wood during the period.

3. In respect of (b) there is still a serious shortage of local skills in both technical, business, and managerial personnel which limits the growth and development of indigenous entrepreneurs. However, in the area of small-scale activity, relative progress was made in leather, craft, wood working, cement block-making, roof tiles and related link activity such as wood moulding and service equipment, retail and repair shops.

4. The objective of job creation has only been partially achieved. Manufacturing employment increased by 89 during this 5-Year period—an aggregate increment of only 10% of industrial employment and a large proportion of this has been in urban centres.
5. With respect to objective (e) most industries have developed to fill immediate needs and gaps made through policy of duty free raw materials and capital equipment. This has encouraged over capacity and over capitalization in most cases and a total dependence on domestic market for economic viability. Thus the basis for long-term and medium term opportunities have not been realized up to now and policies will have to be directed toward structural shifts in production techniques, raw material usage and agro-industrial linkages.
6. The objectives of developing specific projects have been partially achieved and further strengthening of beef and fish processing will have to be pursued to fully realize the benefits of these industries. A similar development will be needed for copra, cocoa and coffee to exploit the various linkages that are possible from the obvious abundance of these primary products.
7. In general, as a first step in the process of industrialization, the achievements, though small, are positive. Policy of the next Plan has to be developed to build on the foundation that has been laid and to redirect and guide the process much more than has happened during the period of the First Plan. Industrial support by the Ministry of Industry has to be improved and strategies recommended implemented with full speed, guidance, and monitoring.

B. Specific Recommendations

1. Since the industrial development programme is now highly predicated on :-
 - (a) the restructuring and strengthening of the Department of Industry,
 - (b) the establishment of Value Added as the criteria for assessing industry performance and encouraging industry development.

it is recommended that the main emphasis of policy be directed at the strengthening of industrial enterprises which have potential to utilize domestic materials such as those based on: wood and agricultural crops, fish and meat stock.

These activities can be supported and strengthened with short-term consultants with specific operational targets and outputs. These areas will include food processing, wood processing, wood product development, shoe and leather product development including on- and off-the-job training in arts and trade skills.

2. The building of an industrial skills bank in all major areas of industrial activity including welding, machine shop operations, tool repair and maintenance, electrical maintenance, wood working arts, basic equipment design and manufacturing techniques. Such a programme should be part of the Industrial Development Training Scheme and which should incorporate a national industrial apprenticeship Training scheme.

3. Improvement of the infrastructure for export development. This will include the establishment of an industry export marketing unit with similar functions and role as the Commodities Marketing Board for coffee, copra and cocoa. To assist industry in this area a Business Development Unit should be introduced. Both units to be under the direct responsibility of the Ministry of Industry and Commerce.

4. The strengthening of import-substitution industries by way of technical assistance, the development, adaptation and maintenance improvement programmes. The objectives of these programmes are to improve value added content, increase labor and equipment productivity, improve job opportunities and generally to increase industry capacity utilization, efficiency and industry effectiveness.

5. The development of an industrial extension service to provide technical and commercial advise to small scale industries and entrepreneurs and especially those sited in suburban and rural areas.

6. The restructuring and strengthening of the Ministry of Industry and Commerce to improve the delivery, coordinating and implementation capability of the two Departments. It is recommended that a senior official be made responsible for the direct day-to-day activity and operations of those two critical economic sectors reporting to the Minister of Finance, Commerce and Industry and Tourism. The division of Cooperatives should be brought under the umbrella of Commerce. To effect this restructuring it is envisioned that a junior ministerial position will be created, under the Ministry of Finance, Commerce, Industry and Tourism.

To enhance the industrialization process a separate letter head bearing only the Ministry of Industry and Commerce is recommended and official signatures to be the (a) the Minister of Finance, Commerce, Industry and Tourism (b) the official appointed to head this junior Ministry and (c) the Directors of the Departments of Industry and Commerce or other authorized persons on their behalf.

SECTION TWO

PART I METHODOLOGY FOR PERFORMANCE ASSESSMENT

A. Introduction

1. This section of the report represents the termination of several weeks of intense study and observations of the industrial infrastructure and supporting amenities existing in the main islands of the Republic of Vanuatu. For the sake of clarity this section has three parts.
2. Part I discusses the methodology used to assess the effects of the industrial policy implemented to support the First Plan and the progress achieved by the industrial sector. A technical note follows explaining the process of estimating Value Added and an example of its calculation.
3. Parts II and III present the findings and observations, and by Extension the main areas of strength and weaknesses of the industrial policy currently being pursued. The section concludes with a rational assesment of the impacts of the new policies for the industrial sector and the likely implications for the wider economy.

B. The Methodology

1. Given the above objectives, and the realities of the working environment in Vanuatu, the use of standard economic or econometric analysis had to be avoided at this stage. Its use would only add to the dimensions of questions moreso than answers since the industrial data base is inadequate in both numbers and quality. In any event, the level of comfort with such outputs would most certainly reduce the scope and quality of the recommendations. Therefore, an alternative methodology which incidentally is of no lesser importance, had to be applied to understand and to estimate the effects of policy on the various industrial subsectors, which necessarily must compete for limited development capital and for priority of the National resources.

2. The methodology makes use of two widely used concepts (a) returns to scale and (b) manufacturing value-added contribution (MVA). The objective of the first concept - returns to scale seeks to identify through a set of composite (function-related) variables, those manufacturing enterprises that possess the ability to use existing resources, and from their impact on the macro economy (via linkage and multiplier effect) produce economic returns which are positive (ie. greater than 1).⁽¹⁾ Outputs which are negative (ie. less than 1) are also ranked. Those enterprises that show positive returns are ranked according to their net or potential contribution. Those that indicate negative returns are ranked similarly. Those which are closest to breakeven (ie. less than 1 but approaching 1) are re-examined on the basis of their social and non-financial impacts such as : number of employees affected, type of employment, geographic location of the industry and alternative opportunity, number of families supported, effect of loss to national pride, security or sovereignty etc.

3. To the extent that responses to these non-financial questions are positive, a ranking is then given so that Government can exercise its decision and priority. It is obvious that some of these marginal and submarginal cases will include priority areas for industry support such as ports, utilities, all of which must be a part of the industrial support structure for which the Government may or may not require control. Those at the bottom of the list (ie. below the cut-off point) are recommended for divestment, if owned or controlled by Government, and others which are owned by the private sector shown that possibilities of mergers with other stronger firms or for phasing out can be encouraged.

4. As indicated earlier, even this approach requires some time series data which is not yet available but will in another few years. Variables that are composite, are easier to collect in small economies like Vanuatu. Since this is perhaps the easiest system to adapt and apply, it is strongly recommended as a matter of urgency. Until an input-output arrangement of inter-industry transactions can be compiled, the use of composite variables will prove very helpful for planning efforts in the future.

1. the multiplied or aggregate effects from an investment in manufacturing is greater than the investments put in.

5. The second approach - using the concept of Value Added content sometimes called local value added contribution (VA) requires the determination of the VA content in existing and potential manufacturing enterprises (hereafter referred to as MVA). While not necessary in this exercise this concept can also be extended to cover the VA content of those commercial enterprises which import and distribute, and therefore compete with commodities similar to those being manufactured and for the limited capital available in Vanuatu. The VA content for the Distributive Trade is referred to as DVA as distinguished from manufacturing VA - MVA.

This concept is based on a proven economic principle which states that every enterprise that creates something of value employs capital and people in ratios depending upon its relative endowment and how much emphasis it places on profitability.

6. The value added by the enterprise is the difference between the final net selling price ⁽²⁾ of that product and the costs of all the inputs purchased ⁽³⁾ to provide that product. In markets which are protected an adjustment index must be applied to correct profitability margin. ⁽⁴⁾ Care must also be exercised to remove the incident of double counting. As the value added increases, the contribution of that enterprises to the national economy improves. If this improvement in value added comes from the utilization of a greater proportion of local labor, capital and other domestic resources including local raw materials, the contribution of that enterprise to the national economy is further enhanced. For the economy of Vanuatu, sufficient information is not available to identify the components of value added and therefore value added for this exercise has to be approximated. Please see note on Annex I. Given appropriate policies and strategies, this increased value added contribution can be guided and developed so that the enterprise

2. the net price received by the enterprise after all discounts.

3. these are explained in details in Annex I.

4. In an economy like Vanuatu's where there is no formal or legally required accounting system for reporting company transactions disaggregation in salaries, expenses and profits has to be achieved by derivation rather than deduction.

not only achieves the potential to compete in its local market but also the enhanced capacity to compete with similar products on the export markets. Through this approach the enterprise can earn and or save foreign exchange that would, under other circumstances be improbable.

Through a weighted aggregation of VA content of the enterprises in each subsector an average MVA can be established for each subsector. Ofcourse the MVA value added content for each enterprise is easily computed. On this basis a ranking is done to establish those subsectors that would contribute most benefits to the industrial and national economy.

7. The main thesis applied in the second approach (using VA) is that productive industries in Vanuatu can be separated into (a) economic enterprises and (b) sub-economic enterprises by a careful analysis of their value added contribution. On this basis, allocative priority can be given to those enterprises with the highest value added contribution and therefore greatest capacity or potential to contribute to economic development. It is suggested here that the sub-economic and marginal enterprises or sectors identified be considered seriously whether their continued existence is in the National interest.

8. Available statistics drawn from the Department of Industry, Vanuatu, NPSO, the UN Statistical reports for Vanuatu, as well as from other independent economic intelligence sources have been helpful in this analysis. The compiled data base was further enhanced by the direct response of a random sample of preselected manufacturing and commercial enterprises to specific questions relating to business operations in Vanuatu.

SECTION TWO

PART II REVIEW OF INDUSTRIAL DEVELOPMENT PROGRAMME

A. Industrial Objectives and Policy

The objectives of the Industrial program as stated in the plan require the sector to develop by way of increased use of local raw materials, local entrepreneurs, earnings from exports, local employment creation and the building of a sound industrial infrastructure. Since the Plan was introduced some of these objectives were accorded higher priority and to some modifications were made. The following were the original objectives and the modifications.

<u>Original Objectives of Plan for 1982-1986</u>	<u>Modified Objectives 1982-1986</u>
1. To promote basic industries which process local materials.	1. Same as before
2. To encourage the emergence of local entrepreneurship both in the form of joint ventures with foreign investors; and village/small scale industries	2. To encourage the increased local (indigenous) participation and control of the industrial economy
3. To encourage exports and import substitution industries in order to improve the balance of payments situation.	3. To encourage local manufacture of goods and the introduction of services to assist in the saving of foreign exchange.
4. To create job opportunities both in rural and urban areas so as to absorb the increasing labour force.	4. Same as before
5. To establish a sound basis for medium and long-term industrial opportunities	5. Same as before
6. To stimulate growth of several key industries such as boat-building coconut oil extration, pozzolana/cement making, tannery leather processing, and wood processing	6. Same as before
	7. To provide a core of readily available skilled and semi-skilled laborforce through the establishment of a centralised Industrial Training Centre.

It is clear from the objectives of the First National Development Plan that substantial progress has been made. Success in the industrial program has been achieved in parts. An examination of the achievements of each objective may be instructive.

B. Observations, Findings and Implications

1. Local Material Usage in Industrial Production

The import coefficient in all branches of manufacturing have remained unnecessarily high. Apart from the printing and non-metal products, and a lesser extent the food and beverage sector all other sectors have shown no significant change in their use of imported raw materials. The wood and wooden products sector despite the apparent abundance of timber in the larger islands showed no improvement since 1983. In fact in 1985 the import was higher at 46 percent compared to 1983 when it was at 46 percent. From observations of the statistics and supported by survey, there has been a significant increase in the use of plastic laminate and plywood in the production of wooden furniture.

1.1 The printing sector has shown great improvement in the use of raw material starting at 45% in 1983 and currently averaging 31 percent. Handicraft has remained understandably low at 22 percent while cloth and Textile has remained flat at 56 percent over the period. It is instructive that the wood and wooden product sector and the food and beverage sector have the greatest potential for manufacturing linkages and the highest capacity to reduce imported material contents. Further examination of these two sectors, as with most of the manufacturing industries, the installed capacities are at least twice that required for the domestic markets. However two major factors seem pertinent:

- (a). The technologies being used by most industries are fixed to one or more international supplier. This implies that very little local change can take place and the use of local raw materials is more imaginary than real, unless a substantial investment in local research takes place. The options are re-investments in or shift in technology.

(b). The products being manufactured are standard products which are available in almost all the islands of the region - for example schweppes. The implication is that the under-used capacity cannot be motivated into export production because the product has no unique feature that can sell it apart from price.

1.2 For these two sectors to develop the capacity to utilize locally available and producible materials, restructuring of these industry must take place. To the extent that the **backward** linkages can be developed the industry can become an economic asset. In its present state, the food and beverage sector with an average value added content of 26 percent corresponds to an import duty level of 34% which falls below the normal 37 percent nominal duty on finished products.⁽⁵⁾ In the case of the wood and wood products sector this is not the case as the VA content corresponds to a duty level of 84 percent which is in excess of the nominal duty on finished products.

2. Development of Local Entrepreneurs

2.1 The development of local entrepreneurs is by its nature a difficult task. Starting even with a higher level of skilled labourforce its development depends on time, opportunity and incentives. Between 1983 and 1985 16 new manufacturing enterprises were started. Of these approximately 20 percent were initiated by Ni-Vanuatu. Although numerically this achievement is small it is positive.

2.2 An examination of the statistics gives the notion that the savings and capital formation process in Vanuatu are still relatively poor. Domestic savings occupy only a small portion of available local capital. The implication is that investment capital for indigenous entrepreneurs or potential entrepreneurs has to come from external sources or from Government. It is conceivable that the conditions under which externally raised capital are available the indigenous entrepreneur will not be able to secure such loans unless with Government guarantee or assistance.

5. signifies that the economic returns are less than one and that the nation is not better off economically from the investment.

3. Import-Substitution and Export Manufacturing Industries

3.1 In the area of import-substitution industries, the industrial development policy has had fair numerical success, although much is to be desired in terms of range of products and depth of manufacture and export development. Between 1983 and 1985 exports from the manufacturing, handicraft and the mineral sector activities decreased.

3.2 An examination of the industrial policy indicates that apart from duty free access for materials, industry has not had much positive incentives. Several factors are pertinent :-

- (a). the Department of Industry has not been sufficiently equipped to assist technically and otherwise the industrial process. The department personnel currently numbers eight of which three are support staff and two are recent recruits.
- (b). the economy is still heavily biased toward trade and the pool otherwise from which industrial entrepreneurs could develop is lacking either capital or initiative.
- (c). the policy for attracting foreign investments has only recently been clarified and still requires refinement.
- (d). the infrastructure necessary to attract industries outside of urban centres are still under-developed in terms of electricity, water and telecommunication. Currently, industries that are located in these areas have to provide most of these services which put additional cost on their operations.
- (e). the minimum wage which is officially at 180,000 VT per annum (approximately US\$1800) but currently reduced to 90000VT per annum makes labour not sufficiently attractive to certain types of industries and particular export industries.

The implications for policy is that for significant expansion to take place in the industrial sectors like garments, and textiles, electronics, chemicals and metal fabrication the minimum wage provision has to be more flexible to accommodate industries that cater to high volume, mass employment and stiff competition. This is even more important for Vanuatu or countries with small domestic markets where expansion can only take place on the basis of export market development. For these sectors to grow and to become real contributors to economic growth they will have to offer competitive labour or select only those areas where price is not the main market force.

4. Job Creation in Industry

4.1 Industrial employment has risen from 811 in 1983 to 900 in 1986 - a level of growth which has shown some improvement but is still relatively low. The ratio of capital to employed labour taken from a random sample of some 25 enterprises over six subsectors varied from a low of 2000 VT per worker in the food and beverage subsector to a high of 1 million VT per worker in the electronics industry. Taken together the weighted average for manufacturing industries was 25,200 VT per worker which is relatively high for a country whose domestic market is below 150,000 persons.

4.2 The implications for policy is that this high capital-to-labour ratio might be over compensating for the lack of a qualified labourforce or that imported capital equipment is so technology fixed that investors have to settle with the standard equipment packages and technological processes on market. This further implies the need for more direction and policy in the selection of equipment and technology to ensure compatibility with economic resources and realities of Vanuatu.

4.3 A further examination of the statistics indicates that there might be under reporting a deliberate curtailment of labour employed to ease the cost of Business License. The implication for policy is that the basis for assessing the cost of Business Licenses needs to be re-examined, other bases could include turnover or capital employed or a combination.

This policy, does not presently encourage the employer to increase employment or at least not full time employment.

4.4 The other implication of this high capital-labor-ratio is that the Department of Industry needs to concentrate its efforts more in the development of small scale industrial activity where capital-to-labor ratio can be lower so that job creation targets can be achieved within the period of the Second Plan.

5. Medium and Longterm Investment Opportunities

5.1 In most developing countries industry development is a response to identified needs and immediate market opportunities. It is up to policy to stimulate the development desired through incentives and regulations. It is thus through the climate which policy creates that the business horizon is lengthened, i.e: Policies which are consistent, which are logical and properly documented and communicated.

5.2 This applies equally to industry development in Vanuatu. Value added as the basis of sound industrial development programme is proposed, but it has to be monitored and the capacity to give assistance must be provided. The manufacturing value added trend between 1983 and 1985 was examined. Though the time period is not sufficient to allow for a meaningful assessment of the characteristics, the trend however is suggestive - that apart from a few cases, value added is not improving. In the areas where value added ought to be highest they are exactly the opposite.

5.3 The implication for policy is that the long term potential of these investments are limited and that if structural adjustments in these industries are not encouraged they will in the long run be a burden to the economy.

6. Development of Specific Projects

6.1 Apart from coconut oil extraction and to some extent boatbuilding the other projects namely, cement making, tannery and wood processing have all been established. In the case of cement, the technology to facilitate the use of local materials has to be developed or acquired if this project is to be meaningful to the economy. In the case of wood processing, substantial investment is required to strengthen this

project. Limitations currently exist in wood curing capacity and wood production requires coordination and infrastructure for proper harvesting.

6.2 This is an industry which has great immediate potential to become not only an important domestic industry but a viable export industry.

The linkages which are possible from the development of this sector have reaching implications for small scale activities and rural development and deserves the highest priority in Government policy.

7. Building of Skilled Laborforce

7.1 The industrial labourforce is presently confirmed to mostly unskilled and semi-skilled persons and the gap in supervisory and management personnel is not closing. According to the most recent Employment Survey of the Private Sector in the Urban Areas 48 percent of the employed Ni-Vanuatu labourforce was in the category of production workers, 1 percent in the category of administrative management or above.

7.2 The implications for policy is that training and manpower development must have a high priority in Government's policy if the industrial growth is to include Ni-Vanuatu, and more so if the industrialization process is to be dependent on Ni-Vanuatu's entrepreneurs, management or ownership.

C. Areas of Weakness in the Industrial Program

1. Structure and Strategies - Policy

- a. An incomplete industrial organization structure that is identified and perceived as the Ministry of Industry with vested and defined levels of authority, responsibility, operational limits and linkages as well as accountability.
- b. Absence of a clearly defined industrial policy that sets out explicitly the course along which the various and sundry industrial subsectors and operations shall be guided, discouraged or supported.
- c. Absence of a conclusive set of strategies that will support the stated policies and guide the development process toward the achievement of the desired objectives of Government and which patently explains the performance criteria and targets.
- d. Inadequate extension service to rural communities and centres.

2. Infrastructure

- a. Absence of an established industrial zone that would encourage infrastructural efficiencies and economies of scale in utilities, transport and telecommunication.
- b. Absence of regular air and direct cargo transport facilities to and from economic raw material source and markets and the resultant delay and additional cost which these absence generate.
- c. The availability of electricity and telecommunication facilities outside urban centres and between vastly separated islands.
- d. Inadequate and irregular shipping route and linkages in and between the islands with the exception of Efate , Santo and Malekula which restrict production and inter island trade expansion.

- e. Insufficient technical and vocational schools and centres to produce and upgrade the pool of industrial and technical workers.
- f. Insufficient numbers of service related activities to support industrial development (maintenance service centres, tool shops, tools etc)
- g. Plant overcapacity and inappropriate foreign technology - fixed processes.

3. Import Substitution and Export Development

- a. High import content in production.
- b. Low value added content in production.
- c. Low ratio of Ni-Vanuatu to other groups of employee, employers and investors.
- d. Limited industrial incentives.
- e. Relatively low productivity of labour and equipment.
- f. No export incentives for export development.
- g. No proper export marketing structure for industrial products.

4. Material and Support Services

- a. The relatively high cost of imported raw materials, capital goods supply and consumption inputs which necessitates the imposition of import duty ceilings or duty concessions has the effect of reducing Government revenue for productive reallocation.
- b. The bias implicit in Government import legislation against certain consumption goods is still not sufficient to attract commercially biased entrepreneurs into local manufacturing. The current bill

in front of Parliament should suffice with some modifications in the concessions on raw materials for approved manufacturers. See Annex II .

- c. Insufficient number and quality of industrial support service centers such as machinery tools and supplies, machine tool shops, maintenance and equipment services could pose a problem as industrialization takes root.
- d. Lack of readily available or developed indigenous raw materials continue to make import unavoidable.

5. Management and Laborforce

- a. The acute shortage of skilled labor and management places a serious threat not only to existing industrial operations but to the attraction of new investments.
- b. The relatively small market size combined with the generally low purchasing capacity of the laborforce could continue to push unit price above normal levels.
- c. The small pool of indigenous entrepreneurs compared with the relative strength and complacency of the commercial sector should pose a great challenge for efforts to create an industrial transition.

6. Information and Incentives

- a. The absence of regular output and availability of quality industrial statistics make industrial planning and for that matter economic planning not only difficult but disparate.
- b. Inadequate attention and priority to generate and publicize information on investment opportunities, investment assistance and concessions continue to limit the effectiveness of the investment promotion and development efforts.
- c. The machinery for monitoring industry performance is currently non existent.

D. Areas of Strengths and Achievements for the Industrial Program

- a. The production and availability of the Investment guideline recently completed will go a far way in assisting potential investors.
- b. The improved data acquisition and timely statistical reports being produced by the National Planning and Statistics Office will add to the quality of the general statistical database. However the industrial content is still very low.
- c. The high quality reflection and review of the First National Development Plan produced and published by the National Planning and Statistics Office in 1984 is a positive measure of achievement for the Planning sector and should promote a greater degree of confidence in the data being published.
- d. The development, and increasing output of the small scale industrial programme especially in the production and export share of copra and cocoa is a positive indication of the potential of that sector.
- e. The low but steady growth in chemical, plastic and tanning is a positive achievement for domestic value added.
- f. The promulgation of Tariffs which removes some of the bias away from consumption imports will provide further stimulation for local production.
- g. Consistency in the regulation of interest rates and money supply is a positive achievement in stabilizing the industrial and commercial climate.
- h. Management of foreign exchange is commendable for both policy and planning.

SECTION TWO

PART III RECOMMENDATIONS FOR INDUSTRIAL STRATEGY AND POLICY FOR SECOND PLAN

A. Introduction

Based on observations, discussions and a thorough analysis of existing industrial facilities and resources several recommendations were made to the Government for implementing an improved industrial strategy policy and for the islands of Vanuatu.

B. General Objectives

The general objectives of policy for the industrial sector to be achieved over the next two phases of the 15-year development plan introduced by the Government of Vanuatu in 1982 should contemplate the following :-

- (a). To modify the structure of the industrial economy, by way of promoting, developing, strengthening and guiding the industrial sector toward a growth path that is both self-propelling and viable.
- (b). To accelerate the pace of development of the industrial sector through appropriate measures and incentives so that it will increase the range, quality and competitiveness of manufactured goods produced locally.
- (c). To promote the development of industries that will exploit the agro-industrial linkages to the optimal economic level so as to achieve a higher level of local value added and domestic employment.
- (d). To create the opportunities that will encourage an increased level of Ni-Vanuatu's participation and ownership in industrial activities.

- (e). To continue work on the development of the industrial infrastructure and support services so that greater levels of national efficiency can be achieved by industry.
- (f). To attract new investments into those branches of industry or into projects that have distinct export capacity.
- (g). To promote a programme that will encourage a geographical distribution of manufacturing industries and related service-type activities through innovative measures so as to increase rural employment opportunities and conditions.
- (h). To strengthen and expand the base for the development of small scale industrial and service-type activities throughout the islands of Vanuatu.

C. Objectives of the Industrial Policy

The following recommendations were made for the objectives of the industrial policy to be pursued during the period of the Second National Development Plan.

1. Industrial Policy for 1987-1991

- (a). To protect and promote industries that are approved manufacturers of products included on the National Production Priority Schedule and those goods that Government desires to be produced locally.
- (b). To use a combination of tariff, quota and other fiscal means to guide the structural transition toward industry and to apply policy with articulation and consideration for the other sectors and the consuming public.
- (c). To direct and encourage industrial development through tax and other incentives based on the certified value added content of production. Incentives should be used as the main stimulant to promote and strengthen industrial investments.

- (d). To promote and assist industrial enterprises that have definite export capacity and potential. Industries with export record, capacity and potential should be accorded first priority in the use of national resources.
- (e). To improve the image and organization of Industry through the promotion of regular dialog, industry visits, and briefing sessions. In addition, the organization of the Department of Industry should be restructured and strengthened to give greater support and assistance to industry.
- (f). To increase coordination and accountability of the Ministry of Industry on matters of policy relating to the organization operation, performance and regulation of industry and commerce. To effect these the two divisions - Industry and Commerce should be linked under one Ministry and the Divisions renamed - Department of Industry and the Department of Commerce. The Department of Commerce should absorb the Division of Cooperatives.
- (g). National manpower development and training should be among the highest priority of Government and a Manpower Development Training Trust Fund and Board should be established to facilitate this program.
- (h). The rehabilitation and expansion of the industrial infrastructure in rural areas should be accorded high priority in Government overall programme to increase industrial employment and sectoral growth.

2. Specific Targets

To realize the objectives of the industrial policy and to provide focus and some measurable goals the following targets were suggested:

2.1 Targets of the 5 Year Plan

- (a). An increase in real gross domestic product contribution of the sector by a minimum of 7.2% per annum during the plan period; that is, from the level estimated at 2240 million vatu in 1986 to 2168 million vatu by 1991.
- (b). The development of the industrial sector on a basis that will achieve an average annual increase in export earnings of 15% that is, from the current estimated level of 62.5 million vatu in 1986 to 125 million vatu by 1991.
- (c). To increase the national pool of skilled labour from the current level estimated at 1020 in 1986 to 2520 by 1991.
- (d). To encourage industrial activity in rural areas and increase employment in the rural communities by an average annual total of 96 new jobs.
- (e). To stimulate growth and development of industries with high value added content in key sectors of the economy and to reach by 1991 an average level of 46% up from the current level estimated at 36%.
- (f). To assist Industry in the identification of local and foreign markets so as to increase capacity utilization of enterprises from the current estimated level of 40% to at least 55 percent by 1991.
- (g). To upgrade industrial infrastructure including the establishment of some industrial buildings in urban and rural areas and improve the technical capability of the Department of Industry and Commerce.

2.2 Specific Issues To Be Addressed

Some of the main problems confronting industrial development in Vanuatu which should be addressed specifically include :

- (a). the shortage of development capital, especially working capital.
- (b). the lack of skills and expertise in the areas of cost accounting, financial accounting, industrial, engineering, maintenance services, marketing services and general management
- (c). the shortage of indigenous entrepreneurs and the absence of initiatives to develop Ni-Vanuatu's capacity to prepare, manage and own profitable projects.
- (d). the high price of raw materials due in part to poor sourcing, small lot size purchases and high transfer costs.

D. Strategy For Industry Development

The main emphasis of industrial policy up to the present time in the Republic of Vanuatu has been the promotion of import-substitution industries mainly to satisfy the domestic market. The establishment of these industries was encouraged mainly by duty free raw material and capital equipment imports, since the economy does not operate corporate income tax system or any foreign exchange or import restrictions. This approach stimulated growth in the manufacturing sector but also encouraged the establishment of some over-capitalized and un-economic production units utilizing mainly foreign technology and a high content of imported raw materials.

The scope of such a strategy for the long term development of the sector is limited. For industrialization to have the best impact on national objectives it must be closely related to, and linked with the development of other key sectors of the economy namely, agriculture and commerce. Therefore a system of industrial priority will have to be established and implemented to correct this growth pattern and to ensure a growth that is viable and sustainable.

The following strategies were recommended to support the policies and to achieve the specific targets identified :

1. Protect and Attract Manufacturing Industries

- (a). Market protection should be provided by the Government to those industries which will generate significant benefits to the economy in terms of employment, use of local raw materials, providing essential services and exports. See Technical notes on Protection Annex III.
- (b). Government should grant lower rates of tariff on imports to all manufacturers where value added content is not less than 35 percent.
- (c). Manufacturing industries with substantially higher value added should be granted additional concession. The rates of concession are shown on the Raw Material Import Concession Schedules.
- (d). A higher rate of tariff should be charged on finished goods to remove the possibility of flooding of the domestic market as a reaction to Government Policy.
- (e). In instances where it can be demonstrated that domestic production is available or the domestic capacity exist to produce goods of a comparable quality to imports, Government should consider the application of a quota system to limit the amount of imports of that product.
- (f). Government should exercise caution in the promotion of industries which will produce non-essential products intended for the local market and in the application of quota. See technical notes on protection.
- (g). Government should strengthen the machinery of customs to ensure that no discrimination or abuse of the system is probable.

- (h). Government should make periodic inspection of industries which have been granted raw material concessions to ensure that the privilege is not being abused. In addition companies granted raw material concessions should be accorded highest priority in the granting of Business Licenses, technical assistance and in any industrial training program sponsored by Government. The Government should be willing to grant extension of Business Licences for an indefinite period if the investment is one which has positive long term implications and benefits to the nation.

- (i). Government should encourage the formation of a manufacturing association to protect the interest of the manufacturing sector as a whole and to liaise with Government and its agencies.

- (j). Government should grant to approved manufacturers concessions on import duty for a period not exceeding 3 years in the first instance. At the termination of this period a further extension should be considered depending on the relative improvement in value added. During the period of the first concession, if substantial improvement has been made in value added, Government should be willing to consider a new application before the expiration of the original concession. See Annex III.

- (k). Government should establish designated areas for industrial development and for which rental or lease should be controlled by law at nominal rates. In addition the Government should consider constructing several small manufacturing complexes in Efate and Santo with necessary amenities to ease the shortage in factory space and to foster rural industrial development.

2. Promote of Manufacturing Industries

In order to promote industries and industrial development, Government should pursue the following strategies :

- (a). invite potential investors (in manageable groups) from existing manufacturing and commercial enterprises to briefing sessions on Government policy and direction. All documents on incentives, support services, as well as the summarized plan for the country's industrial development should be available for distribution and discussion.
- (b). the appointment of an Advisory Board for Industrial Promotion to be chaired by the Minister of Industry and Commerce. The Board should be composed mainly of influential private sector entrepreneurs and counterparts from the relevant public sector. The advise given will form the basis of the agenda for the Action Committee in the Department of Industry.
- (c). Launch intensive marketing research programme to identify and quantify sources and availability of raw materials, local and/or foreign market demand, as well as local and prospective foreign investors.
- (d). Launch an intensive drive through the Business Development Unit of the Department of Industry and Commerce to identify products that can be manufactured locally with existing equipment. Identify all interests.
- (e). The industrial policy and strategies as outlined in the PLAN to be summarized in the form of a small booklet and publicized widely to all existing investors, potential investors and displayed in offices of all supporting sectors as well as through the international network connected with Vanuatu. This function should largely be carried out by the newly revitalized division for Industrial Promotion in the Department of Industry.

- (f). A prominent and permanent location should be designated for the display of all locally made products.
- (g). Include the National Production Priority Schedule (NPPS) in the Guide to Investors for all products and projects that are considered desirable for local and foreign investments.

3. Reorganization and Strengthening of Structures

- (a). The department of Industry and Commerce should be restructured and strengthened to give clear signals of authority, defined operational parameters, targets, budget and lines of accountability. A new organizational chart was proposed. It is envisioned that a junior Minister or Minister of State ~~would~~ be appointed under the Minister of Finance, Commerce, Industry and Tourism to be responsible for these two very important departments.
- (b). The establishment of a standards office with responsibility to include inspection, quality monitoring and control, approval and certification. This officer should be identified, at the earliest opportunity, given the necessary relevant training and exposure in an appropriate standards training institution.
- (c). The establishment of a Business Development Unit (BDU) in the Ministry of Industry and Commerce to develop, assist and advise small and medium scale entrepreneurs in commerce and industry. The Business and Development Group in the Department of Cooperatives be developed to cover both aspects - Industry and Cooperatives development.
- (d). Encourage the establishment of a manufacturers Association to improve the image and to provide a code of ethics for industry. The body should be the main link of communication between Industry and the Department of Industry.

- e). To appoint an executive of the manufacturers Association on all relevant public sector boards eg. DRV
- (f). The establishment of a rural industrial extension service. The responsible officer could be the heads of the District Cooperative offices or someone assigned to those offices.

4. Incentive, Performance and Regulation

- (a). The promulgation of necessary legislation to establish Value Added as the primary criteria to promote, develop and assess industry for incentives and concessions. See Technical notes on Value Added Annex I.
- (b). The enforcement of the Audit Act or some other formal system of Annual Returns obligating manufacturing companies having sales turnover in excess of 2,000,000 VT who are enjoying or seeking approval for concessions to make audited returns to the Department of Industry annually for the continuation or extension of concessions. This measure should not only improve manufacturing efficiency in Vanuatu, but bring Vanuatu's industrial sector in line with international business practice. Of course it will also help to improve the quality and integrity of industrial statistics collected and analysed for sectoral planning and certification of VA content. See Technical notes for VA interpretation and calculation.
- (c). The current practice of collecting monthly, or using average monthly estimates of production statistics to project industry share of gross domestic product and other vital national output indications should be discontinued. Until the Audit Act is re-introduced, quarterly actuals should be used with adjustments made of year end based on the last quarter or end of year statistics.

5. Manpower Development

- (a). The establishment of an Industrial Training Scheme* to be funded jointly by Government and the Private Sector. The scheme should be administered jointly by a Board of Management drawn from the Government and Private Sector. It should have national network in both urban and rural centres. Program and curriculum to include skills training in all major disciplines on and off-the-job, business education at various levels and entrepreneurship.
- (b). The promulgation of appropriate legislation to establish the Industrial Manpower Development Fund (IMDP)** and an appropriate levy should be made on all employers based on a one percent of gross employee wage bill and allowing for rebate of up to 100% of direct training costs to employers who operate an approved training programme.
- (c). In conjunction with the Ministry of Education seek for the expansion of technical training facilities in primary and secondary schools and to work towards the development of the technical school in central Vila with English as the operating language. The importance of this development cannot be over emphasized as any industrial programme proposed by Government will be severely hampered by the quality and availability technically and vocationally skilled labour force.
- (d). The promulgation of legislation to establish a Industrial Apprenticeship programme to be administered by the Ministry of Industry and Commerce which should give qualified school leavers industrial training experience in various trades for a period of up to 2 years with specific weekly allowance to be paid by Industry. The present minimum wage act should be adjusted to accommodate this variation.

* Elsewhere referred to as the Industrial Apprenticeship Training Scheme (IATS).

** Elsewhere referred to as the National Manpower Development Trust Fund (NMDF).

6. Infrastructure and Support Services

- (a). the early conclusion of direct air traffic from Vanuatu to the major sources of supply and markets.
- (b). the expansion of linkage roads to potential industrial sites in rural areas including sites identified for saw milling, and other small scale food processing operations.
- (c). the expansion of electricity, telephone and water to all major rural centres outside of urban and suburban districts. This will necessitate an expansion in existing power generation and telephone exchange facilities.
- (d). the establishment of a mini industrial estate complex suitable sited and sized outside centre city Vila and Luganville with all related amenities.

Such a complex will encourage efficiencies in the distribution of utilities and support services, as well as in production, labour and industrial linkage development. Besides, it will demonstrate Government's commitment to industrial development.

7. Export Development

To date the incentives available to the manufacturing industry are not specifically geared toward export developments. In recognition of the vital role which exports must play and the need to expand beyond the traditional forms of exporting i.e. beyond primary production, the Government should introduce additional incentives to develop the manufacturing/processing industries to achieve targeted level in the export earnings.

E. Conclusion

1. Vanuatu as an island economy has certain unique and intrinsic characteristics which should be preserved as it seeks to develop and materialize its industrial potential. For industrial strategy design, this implies both optimism as well as caution. An industrial policy that does not seriously recognize the relative capacity and resilience of the traditional sectors in the economy or the influence of the commercial environment runs the risk of promoting an inescapable economic stalemate.

2. The cash economy has very deep roots in the Ni-Vanuatu's tradition and culture and with it an almost imperviable state of independence in the average citizen above 35 years of age. Production methodologies and industrialization are still new concepts and must therefore be aimed at the graduating and younger generation whose future is not necessarily bounded by the same social and traditional environment. To achieve a production level beyond the immediate cash needs of the Ni-Vanuatu unit, policy must be directed toward stimulating a greater level of consciousness in the saving habits of Ni-Vanuatu and by extension an increased proportion of indigenous capital. The links to other key sectors of the economy have to be clearly identified and pursued through an educational system that gives clear bias to manufacturing production and agro-industrial output.

3. Industrial development so far in Vanuatu has been taking place almost in isolation from the other sectors of the economy. For the programme and process to be strengthened much greater integration is necessary between the Department of Agriculture and the forward linkages with Commerce.

The two sectors having the greatest possibility for backward linkages and hence the greatest potential for value added improvement are wood and wood products and food processing. The present trend of high and increasing import content in the food sector needs to be corrected.

Appropriate policies should be put in place as early as possible. In both instances, for wood and food processing, Government will need to direct local research and investments to realize the potential benefits in the saving and earning of foreign exchange from these sectors.

4. The other sectors of the industrial economy will at best have only marginal impact on saving foreign exchange. If the trend continues with high capital investments relative to labour, over capacity, and standard technology packages those manufacturing sectors will not help the economy to improve its balance of trade or payments.
5. The Department of Industry needs to identify much more positively with the day-to-day developments and problems of the industrial sector. In its present state it does not have the technical nor numerical capacity to do much more. Its role and capacity can be greatly improved if the resources of the Department of Cooperatives were joined to make an effective team for the promotion of industry and the preservation of Commerce and the vibrancy of a free market.
6. The development of technical and industrial skills as well as vocational skills in arts and crafts should provide the basis on which to develop entrepreneurial skills for small scale industrial activities. If the process is reversed as the present program shows, it will take much more time and effort to develop entrepreneurs since both the art and the acumen will have to be acquired at the same time.

Finally, the areas of standards and quality control, export marketing, wood and food processing research and development, and industrial maintenance and repair workshop development, are areas in which organizations such as UNIDO, ILO, ESCAP and CFTC can play significant role. These are activities that are identified as critical to the achievement of the industrial objectives and programmes recommended for implementation over the next five years.

Annex 1

TECHNICAL NOTES ON VALUE ADDED AND ECONOMIC PERFORMANCE

MEASUREMENT

1. Every enterprise employs resources - capital and people, in ratios depending upon its relative endowments - to create something of value. What it creates are goods and services, some of which are used directly by its citizenry, some exported and others passed on to other enterprises as raw or intermediate inputs.
2. The economic value the enterprise creates is the difference between the cost of purchases (raw materials, technology, components, equipment, supplies, energy) and the income from the sale of the goods and services produced. What the enterprise does therefore is add value to the purchased inputs of materials and energy. Thus the economic productivity (P_e) of the enterprise is given as:

$$P_e = VA \div (L + K) \frac{1}{rK}$$

where

- P_e = economic productivity
- VA = value added in dollars
- L = total payroll
- K = capital employed in dollars
- r = cost of capital (depreciation of interest rate)
- 1 = payroll per worker

3. Similarly, the formulas for the partial measures of the economic productivity of labor and capital are:

$$P_e (L) = VA \div L \frac{1}{rK}$$

$$P_e (K) = VA \div K \frac{1}{rK}$$

4. For national development the success with which the enterprise creates "value added" using its resources of people and capital is a critical measure of its use of imported inputs (foreign purchases). Thus, the economic performance index (P_e) is obtained by aggregating the respective economic productivities of all the enterprises/sectors within the system and adjusting them by the domestic input ratio*

* domestic input ratio is sometimes referred to as the domestic resource ratio (DRR)

Annex I Cont'd

C. Methodology for Calculating Local Value Added

1. Method 1

Value Added for Sector J

$$= P_d + PT + M_d + OP_d + AP_d + L_d + OH + P$$

subscript are left out for simplicity.

Legend

P_d = locally payroll deducting 50% of payments to resident Foreign nationals.

PT = process time or machine time (or rental value)

M_d = value of local material used

OP_d = other local purchases (subcontracts)

AP_d = avoided purchases (rent or lease)

L_d = levies (tax, duty, insurance, interest) *

OH = overhead expenses excluding foreign payments and depreciation in capital cost **

P = profit retained in the business or distributed to local shareholders
(repatriated profits are deducted)

2. Method 2

Value added of each sector, V_{ij} in real terms, can be obtained from national accounting statistics by calculating

$$V_{ij} = (X_{ij} - M_{ij})/p = \frac{P_i}{P} \left(1 - \frac{P_i^m}{P_i}\right) \frac{M_{ij}/P_j^m}{X_{ij}/P_i} \frac{X_{ij}}{P_i}$$

Where

X_{ij} = value of total production of industry i of sector j;

M_{ij} = materials imported for industry i, sector j;

P = national income deflator;

* Only amounts actually paid out are applicable

** Only applicable if capital is from foreign investor

P_i^m = price index of raw materials for industry;

P_i = price index of industry products;

P_i^m = price index of raw materials for industry;

P_i = price index of industry products;

3. Method 3

Given the limited data base on industrial statistics in Vanuatu, the very sparse information obtained by the Department of Industry from companies who are neither obligated to report the incomes, salaries or expenses connected with the business and who are not required to produce audited statements, it is conceivable that neither method 1 nor method 2 can be applied at this stage. Given the sensitivity of the sector at this time without the legal requirement of an annual audit, it was prudent to develop a more practical method to estimate value added content. Until the Audit Act is re-energized or some formal system of reporting put in place and the data base improves method 3 will have to suffice :

$$VA = M + P = S - (R + X) \text{ where } M = S - C \text{ and } C = P + R + X$$

Where M = Gross margin

X = Other unidentifiable local expenses (assumed here
to be included in gross margin)

S = Net selling price of product

R = Raw material purchased from imported source

P = Payroll and salaries of all employees

In some countries a significant portion of the commodities manufactured by some industries (e.g. joint venture arrangements, or contract agreements under LOME or GSP manufacturing systems) are manufactured on commission for non-manufacturing enterprises from materials owned and supplied by those enterprises. As a consequence turnover figures may not reflect

the gross value of those commodities but only the commissions earned. For similar reasons the value of materials used in producing those commodities is likewise not reflected in the figures for purchases, transfers in, and selected expenses. In countries like Vanuatu where foreign investments are being encouraged care must be exercised in the interpretation of turn over sales if inter company transfers are made in either raw material or finished production or where sales are made from one unit in the chain and invoices are sent from another.

D. Example for Calculating VA content

1. Assume company XYZ has the following audited statement.

1. Annual sales	1591600 Vt (S)
2. Value of imported raw materials used	1132700 Vt (R)
3. Annual Payroll of salaries and wages	
(Total)	97600 Vt (P)

$$\text{From theory } C = P + R + X \quad (1)$$

$$M = S - C \quad (2)$$

$$= S - P - R - X \quad (3) \text{ therefore } X = S - (M + P) - R$$

$$VA = S - R - X \quad (4)$$

$$= S - R + M - S + P + R \text{ substitutings for X from (3)}$$

$$= M + P$$

Best case senario

where C = total costs

S = total sales

M = Gross margin

R = Value of Raw Materials

P = Payroll cost

X = Total other expenses

2. Assume 30% of payroll is attributed to foreign nationals

$$VA = M + .7P$$

Medium Case Senario

3. Assume 30% of Gross Margin and payroll is attributed to Profit and other payments to foreign nationals.

$$VA = .7M + .7P$$

$$= .7 (M + P)$$

Worse Case Senario

4. Using Best Case Scenario and Gross Margin to sale of .25

$$\begin{aligned} VA &= (M + P) = .25 \times 1591600 + 97600 \\ &= 495500 \quad Vt \end{aligned}$$

$$\begin{aligned} VA\% &= 495500 / 1591600 \\ &= 31 \end{aligned}$$

TECHNICAL NOTES ON PROTECTION FOR MANUFACTURING INDUSTRIES

1. This note is important as an addendum to the industrial plan and strategy for 1987 - 1991 because of:
 - a) Government's intention to make a structural shift* toward an industrial economy.
 - b) Government's desire to build not just a diversified but a balanced economic structure and
 - c) The strong economic base of the commercial sector and the current bias toward trade.

2. Protection is a necessary device to facilitate industrial development but more so to start the industrialization process. In a small market economy like Vanuatu which shows a serious lack of industrial entrepreneurs, a policy that is explicit and unambiguous is absolutely necessary. But even more important, the successful achievement of the stated objectives is an implementation programme that speaks fairly to each and to all.

3. The techniques used to implement a policy of protection for industrial development are almost universally the same package. The strategy, the timing, the feedback and the response are however what makes a policy succeed or fail. In this case there is no question whether protection is necessary. But protection in this economy must aim to achieve two things:
 - a) to stimulate existing and potential entrepreneurs to make the shift from trade to production and
 - b) to achieve the above without economic loss or conflict.

4. Such a strategy requires clear communication in policy and from policy-makers to the various levels of the economic system. The fact is that the major pool of existing entrepreneurs are commercially oriented and therefore the transition will not necessarily be understood by everyone on the first or even the second meeting but it will be understood eventually if every one implementing the policy understands the objectives. i.e. Incentive officers, custom officers, investment officers and the intermediate hierarchy.

* The current heavy bias towards trade and commerce needs to be balanced by industrial expansion if the agro-industrial linkages are to be realized.

5. In a small country, particularly an isolated island economy, the use of investment capital intended for industrial development has to be properly managed. Experience in other countries has shown that quite easily finished goods can enter the country under the guise of raw materials and therefore escapes paying the applicable import duty. But the effect is even worse, because once it starts it usually develops to the detriment of the sector itself where others are forced by competition to do the same in order to remain viable. Thus, a programme to increase industrialization through protection could prove counter productive. To be able to detect these variations the customs officers have to be properly trained and specialized.

6. For this reason it is suggested that tariff measures be complemented with a system of quota on those products which have definite domestic production possibility. Although quota has only seldomly been used in Vanuatu any other measure is not likely to achieve the objectives of policy. It has been recommended that the proposed tariff be moderated and applied in two stages:

*Stage 1 75% of target tariff with 50% quota

**Stage 2 † 25% target tariff with 75% total quota

7. Stage 2 should be reached when available production and capacity are in place. The system should then be continuously monitored by the Department of Industry to reverse the process of protection and to allow world prices to orderly moderate the cost of domestic production. It is at this stage that effective protection becomes important where the protection is gradually released at the most effective points in the industrial process. There are several methods to estimate the effective rate of protection but perhaps the simplest is given by

$$e = \frac{I_n - (I_m \times R_m)}{V_p}$$

where

e = the effective rate of protection or de-protection

I_f = nominal duty on the imported finished goods

I_m = nominal duty on imported raw materials after concession

R_m = Ratio of raw materials to output

V_p = Ratio of value added to output

* Apply 75% of maximum intended tariff and allow 50% of imports of finished products.

** Apply 100% of intended tariff and allow 75% of imports of finished products.

Example for calculating Effective Protection Index

Assume company XYZ having the following Audited Statement

1. Annual Sales	1591,600 VT
2. Value Added Content	31%
3. Value of imported raw material used	1132,700 VT
i.e Raw material to output	1132700/159160=.71

effective rate of protection is expressed as:

$$e = I_f - \frac{(I_m \times R_m)}{V_r}$$

- where
- e = effective rate of protection
 - I_f = normal duty on imported finished goods
 - I_m = normal duty on imported raw material after concession
 - R_m = Ratio of raw material CIF value to output
 - V_r = Value added ratio

Assume normal duty of 37% on finished goods imports i.e I_f = .37

Assume 37% concessions on raw material imports i.e I_m = 0

$$e = \frac{.37 - 0}{.31} = 1.19 \text{ Maximum Protection}$$

Assume no concession on raw materials imported I_m = .37

$$e = \frac{.37 - (.37 \times .71)}{.31} = .35 \text{ No Protection}$$

Any index above 0.35 indicates a level of protection

Assume import duty is reduced from 37% to 25%

i.e a reduction of 32% then I_m = (.37 - .25) = .12

$$\text{effective rate of protection } e = \frac{0.37 - (.12 \times .71)}{0.31} = .92$$

ANNEX III

NPPS Schedule III Raw Material Import Concession

Import duty rates of concession % age	Net value added contribution by enterprise % age					
	above 75	75 - 60	59 - 50	49 - 40	39 - 35	34 - 20
100	x					
75		x				
50			x			
40				x		
35					x	
25						x

Notes:

This schedule of concession is initially for 3 years from the date of initial production and is granted on the basis of net value added being no less during the period than that for which the enterprise qualified.

This concession may be extended for a further period, reduced or removed after the period has expired. The Department of Industry has the responsibility for periodic inspection and review to ensure that value added is maintained or improved during the period. Improved value added will be considered favourable.

This schedule is to be read in conjunction with Schedule III to the Vanuatu Customs and Tariff Regulations.

Development curve showing VA average at 1986 and Targets for 1991, 1996 and 2001 respectively.

