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Technical report: Manpower requirement and follow-up  
training programme for the management and implementation  
of industrial strategy and policies for  
The Second National Development Plan, - Vanuatu\*

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

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324

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

ABSTRACT

The proposed training programme is intended to complement the proposals made for the industrial strategy and policies for inclusion in the second National Development Plan. It is based on a preliminary assessment of the obvious gaps and weaknesses in industrial manpower availability.

The programme is divided in six sub-programmes:

1. For senior planners in the National Planning and Statistical Office and selected directors of Government Departments;
2. For senior and upper-level managers and heads of Departments;
3. For managers, owners and operators of industrial enterprises;
4. For trainees in special industrial skills which encompass a wide range of disciplines;
5. For indigenous entrepreneurs in small- and medium-scale industrial or service-type activities;
6. For other specialized training needs which have been identified as critical gaps to the success of the implementation of the industrial strategy.

TABLE OF CONTENTS

A.	INTRODUCTION	6
B.	MANPOWER DEVELOPMENT	8
	1. Senior Executive & Technical Officers	8
	2. Senior Managers	9
	3. Industrial Owners/Management	10
	4. Basic Skills Requirements	11
	5. Small-scale Entrepreneurial Skills Development	12
	6. Selected Training Requirements	13
C.	NEED DEFINITION AND OBJECTIVES	14
	1. Senior Executive and Technical Officers	14
	1.1 Development Financing	14
	1.2 Economic Analysis and Computer Modeling	14
	1.3 Cooperative Management	15
	2. Senior Managers	15
	2.1 Project Evaluation, Analysis & Management	16
	2.2 Small-scale Industry Management	16
	2.3 Production and Marketing Management	16
	3. Industrial Managers	17
	3.1 Accounting Practices	17
	3.2 Maintenance and Productivity Management	18
	3.3 Product Development	18
	4. Skills Training	18
	4.1 Organization	18
	4.2 Funding	19
	4.3 Curriculum	19
	4.4 Stipend	19
	4.5 Termination	20

5. Entrepreneur Development	20
6. Specialized Training	20
6.1 Quality Control - Standards Officer	21
7. Concluding Remarks	21

A. Introduction

The following training programme is intended to complement the proposals made for the Industrial Strategy and Policies for inclusion in the Second National Development Plan. It is based on a preliminary assessment of the obvious gaps and weaknesses in industrial manpower availability and have been compiled after discussions with a broad range of officials, personal observations and from published employment statistics. The training needs are by no means complete and the list will require updating from time to time as further needs are known or based on new developments. The programme is organized in six sections.

Section I for Senior Planners in the National Planning and Statistical Office who have the principal role of coordinating and monitoring the Industrial Plan, and selected Directors of Government Departments that are involved in sectoral planning and/or in the implementation of the Industrial Plan.

Section II is geared toward Senior and Upper Middle level managers and Heads of Departments who are primarily responsible for the direct day-to-day implementation of the Industrial Plan.

Section III is devoted specifically to the industrial needs and relate to the management, owners and operators of industries where industrial management requires a general knowledge on appreciation of general management and production techniques in current use.

Section IV addresses the issue of production and industrial skills which encompass a wide range of disciplines. Because the laborforce is small, several of these programmes will overlap in terms of topics.

This has been deliberate to ensure meaningful participation in each course and to provide some flexibility in the use and application of skills acquired by participants.

Section V is aimed at the development of indigenous entrepreneurs in small and medium scale industrial or service - type activities. In Section VI an assessment is made of some specialized training needs which were identified as critical gaps to the success of the implementation of the industrial strategies.

Finally, it is strongly recommended that Government makes a positive attempt to implement these training programmes as early as possible and to utilize all available fellowships, bilateral or international technical assistance as well as its own resources to ensure continuity and effectiveness in policy and strategy implementation.



## MANPOWER DEVELOPMENT

## Section I Senior Executive &amp; Technical Officers

Participation	No in each category	Development Financing	Economic & Comp. Modelling	Industrial Information & Documentation	Industrial Planning & Programme	General Management	Cooperative Management	Financial Management & Analysis	Accounting	Costing, Pricing & Budgeting	Marketing & Export Development	Project Management	Strategies Planning
Senior Planners	2	X	X	X	X	X		X				X	X
Junior Planners	4	X		X	X			X		X	X	X	X
Dept. Directors	6			X	X	X	X	X	X	X	X	X	X
Senior Managers	12			X	X	X	X	X	X	X	X	X	X
Industrial Managers/Owners	15			X	X	X		X	X	X	X	X	X
Industrial Statistioian	1		X	X	X								X

The above matrix shows the various topics that will respond to the needs of the persons who currently hold senior positions in Government, Quasi Government, Non-Governmental Organizations and Industry.

## Section II Senior Managers

Participants	No of Persons	Personel Management Industrial Relations	Accounting	Book-keeping	Project Evaluation and Analysis	Productivity Management	Feasibility Analysis	Costing and Pricing	General Supervision	Quality Control Techniques	Purchasing and Materials Management	Marketing	Energy Management	Small-scale Industry Management	General Business Education
Senior Manager	14	X	X				X		X		X	X	X	X	X
Industrial Manager	20	X	X		X	X	X	X	X	X	X	X	X	X	X
Junior Level Managers	30	X		X	X	X	X	X	X	X	X	X	X	X	X
Engineers & Technicians	10					X	X	X	X				X	X	X
	74														

The above matrix shows the various topics that respond to the needs of Senior and upper middle level managers in Government Departments, Quasi Government, Non-Governmental Organizations and Manufacturing Industries.

Section III Industrial Owners/Management

Participants	No of Persons	Entrepreneurship and Risk Analysis	Basic Book-keeping	Advance Book-keeper	Production Planning Technical	Estimating	Profit/Loss Accounting	Report and Technical Writing	Maintenance & Repair Techniques	Product Development and simple research	Make or Buy Decision making	Plant Layout and Productivity Improvement
Industrial Managers	20	X	X	X	X	X	X		X	X	X	X
Middle level Managers	30	X	X	X	X	X	X	X	X	X		X
Small Industry Owner/Operator	50	X	X			X	X		X	X		X
TOTAL	100											

The above matrix shows the various topics that respond to the needs of the Small Business Owners, operators and Production managers in manufacturing and service type activities. Training should commence by mid 1987.

PROPOSED PROGRAMME

Skills Requirements	No of Persons Enrolled	PROPOSED PROGRAMME			
		Technical High School	Vocational School	Industrial Apprenticeship Training Schemes	Others Training Schemes
Welding and Fabrications	100	X		X	
Electrical, wiring/repairs	30	X		X	
Plumbing	16			X	
Shoe making and repairing	40				X
Carpentry and joinery	100	X		X	
Machinery and toolmaking	18	X		X	
Tailoring and Sewing	100	X	X	X	
Baking and Pastry making	20			X	X
Printing and Binding	28			X	
Measuring Building Contracting	36			X	
Airconditioning	8			X	
Telephone Operating				X	
Gen Production working	200			X	
Wood carving	36		X		
Typing	30	X			X
Equipment repairing	10			X	
Mechanics	48			X	
Cleaning	6			X	
Pottery and Sculptoring	60		X		



Section VI Selected Training Requirements

		No of Persons
Standards Officer	2	X
Public Relations Off.	2	
Investment Officer	3	
Industrial Training Coordinator	1	X
Industrial Manager	6	X
Engineers	3	
Draftsmen/Designers		
Custom Officers	8	
Training Officers	2	X
		Teacher Training
		Information Collection and Processing
		Industrial Training
		Food Processing
		Import Regulation
		Wood Processing
		Meat Processing
		B. Sc. Programmes Overseas
		Diploma Programs Overseas
		Familiarization Tours
		Public Relations and Communications Skills

C. Section I Need Definition and Objectives

1. Senior Executives and Tehnical Officers

So far 40 persons have been identified for training in the areas of Planning, General Management, Financing and Cost Accounting and Macro-economic Analysis & Modeling. It is envisioned that short external courses and fellowships could address the-needs for :-

- (1) Development Financing
- (2) Economic Modeling & Analysis
- (3) Cooperative Management

Two persons have been identified for external training in Economic Analysis and one each for Development Financing and Cooperative Management. The other courses can be operated locally and short term experts in each discipline be invited to hold seminars since the topics are common to a wide cross section of participants. Because they are short courses it is recommended that over the 5 year period the courses run for 1 week every other year in each of the three broad areas. ie 3 courses every two years.

1.1 Development Financing

1.1.1 Objectives

To obtain clearer understanding of policies and programmes for financing small industry, appraising application for loans based on proper project analysis, borrower analysis, repayment counselling and diagnosis, entrepreneurial strengthening and development, acquire skills in evaluation of potential of small scale industry sector, to identify constraints, and to design and implement programmes to finance and advise small-scale entrepreneurs in technical fields.

1.2 Economic Analysis & Computing Modeling

1.2.1 Objectives

Introduction to macro-computing with practical exercises in Basic and packaged programming languages. Exposure to structuring of National Accounts - systems of national accounts (SNA) of a similar system to

the United Nations Sectoring, treatment of small establishments and non-profit organizations, prices and quantity comparisons. Input - output table formation of inter/intra-industrial transactions, productivity analysis and sector output analysis, report formatting, analysis of input-output tables and social accounting matrices.

### 1.3 Cooperative Management

#### 1.3.1 Objectives

To obtain practical and classroom exposure to development, training and counselling in cooperative programmes with emphasis on joint production techniques, cost sharing techniques group buying and group marketing approaches.

Counselling techniques for entrepreneurial development, exposure to backward and forward integration and linkages development and basic concepts for operations management, profitability calculations and reporting.

## 2. Senior Managers

Sevnty four senior managers have been identified for training in three broad areas :-

- (1) Project Evaluation & Analysis
- (2) Small-scale Industry Management
- (3) Production & Marketing Management

All these courses can be taught locally with a two man expert team from UNIDO or other qualified organization since the topics are common to a wide cross section of interests. Short term exposure overseas recommended for small-scale Industry Management personnel. (Limited to 1 teacher trainer and Director of Industry)

In the area of Personnel and Industrial Relations, because of the narrow interest group, one seminar of 2 in 3 days duration repeated every two years would be appropriate. The other topics



- production and marketing require a one man-week expert once per year for two years 1988 and 1989.

The training in Quality Control can be done with the locally trained Standards Officer, in 1988 and this should be an on-going activity.

## 2.1 Project Evaluation, Analysis and Management

### 2.1.1 Objectives

To provide basic tools of analysis in finance, marketing production and management for small to medium size industrial and commercial enterprises, emphasizing commercial viability. Exercise in cost-benefit analysis, breakeven production, value added methodology, payback, net present value, economic rates of return and impact analysis. Exposure to evaluation of technical projects and technical report writing and basic reporting format would be helpful.

## 2.2 Small-Scale Industry Management (Limited to one teacher trainer and Director of Industry)

### 2.2.1 Objectives

To obtain practical exposure through industrial attachments at relevant firms, on-site observation, visits to trade fairs.

To obtain classroom counselling in the function of small industry management problem detection, diagnosis and alternative solution techniques, industrial productivity improvement, strategies for production expansion. Also market development including retailing and wholesaling opportunity assessments, their promotion and development.

## 2.3 Production and Marketing (General)

## 2.3 Production and Marketing (General)

### 2.3.1 Objectives

To expose participants to current production and marketing techniques and exercises in their application by small industrial enterprises with narrow product range. Techniques should include technology selection, process selection and - adaptation, variation and line modification, work flow planning, measuring output and productivity, raw material sourcing stocking policy and practices should be discussed. Exposure to current practices.

## 3. Industrial Managers (General)

All these topics relate to the operation of production and can be conducted by the Department of Industry. Three basic courses are required :-

- (a) Accounting
- (b) Maintenance & Productivity Improvements
- (c) Product Development

Accounting seminar can be held jointly with locally trained senior managers. A one man-week expert once per year for two years would be appropriate. The Maintenance and Productivity improvements seminar should be run yearly for one week duration to introduce and strengthen the industrial productivity concepts. Product development has to relate to specific industries. Training has to be taken care of when product specialist from UNIDO or other organizations are contracted to the Department of Industry or Agriculture.

## 3.1 Accounting Practices (General)

### 3.1.1 Objectives

To give industrial accounting managers a working knowledge of accounting practices from ledger keeping to accounting statements for balance sheet, income statements, cash flow reporting and basic financial analysis.

### 3.2 Maintenance and Productivity Management (General)

#### 3.2.1 Objectives

To expose industrial managers to the principles and practices in maintenance management, cost effectiveness of maintenance, maintenance systems - preventive, planned and emergency - maintenance recording and simple analysis, budgeting, control, decision-making for maintenance training, parts inventory, and maintenance planning and costing techniques.

### 3.3 Product Development

#### 3.3.1 Objectives

To respond to specific product on process needs.

## 4. Skills Training

### 4.1 Organization

This is a new programme to be operated under the Industrial Apprenticeship Training Scheme in the Ministry of Industry and Commerce. The programme will offer a 2 years practical training in industrial skills and will place registered apprentices in various industrial enterprises throughout the islands. There will also be four class room sessions each of 2 weeks duration where relevant lectures will be given to supplement practical training. It is envisioned that appropriate legislation will be passed to established the scheme by early 1986 for implementation in early 1988.

The programme will have a Board of Management and day-to-day activities will be managed by a Training Coordinator/ Manager with a permanent staff of four as follows :- secretary/accountant, two trained industrial arts teachers as extension officers with one driver. Three part time teachers will be employed as necessary from industry to supplement subject training in specialized areas from time-to-time.

#### 4.2 Funding

Funding for the programme will be raised from a levy to be applied on all employers including Government, based on 1% of total employee wage bill. This amount will be collected monthly and lodged to the accounts of the National Manpower Development Trust Fund which body will allocate funds to the Apprenticeship Board on the basis of an approved budget. The Board of Management of the Apprenticeship Training Scheme will comprise a wide range of interests including four members from the private sector, and one member each from the departments of Education, Labour, Commerce, National Planning and Statistical Office and the Director of Industry who shall be the Chairman. The training Coordinator/Manager shall be the secretary for the board.

#### 4.3 Curriculum

Curriculum and programmes shall be decided by the board of management. Programmes will be arranged throughout the islands. Training facilities will be provided and will include class room lectures during specified periods of the programme. Otherwise apprentices will be assigned to specific industries to acquire specific and general industrial skills.

#### 4.4 Stipend

Under the scheme apprentices will be given a weekly stipend to be fixed by Government. ( a figure not exceeding of 4,000VT per month should be considered reasonable). Apprentices in the scheme will have been registered formally and necessary clearance obtained to relieve employers of the minimum wage requirements during the period of training. Trainees should be allowed all other benefits available to the general workforce like accident insurance and vocation allowances.

#### 4.5 Termination

During the training, apprentices will be given examinations and grading and employers will be requested to report on the progress, performance and attitudes of apprentices assigned. On successful conclusion of the training a certificate of competence will be issued to each qualifying apprentice. To initiate this programme a Teacher Trainer in Industrial Arts will be required for 6 months. It is suggested that UNIDO or ILO be approached for assistance.

#### 5. Entrepreneur Development

These programme is largely designed to assist the small owner operator on techniques to improve skills, production, record keeping, buying and selling methods and generally to enhance his/her ability to develop and grow. The programmes should be basic, practical and interactive. They will be run by the Departments of Industry and Commerce throughout the islands.

#### 6. Specialized Training

These programmes are intended to respond to the specific needs of Government and Industry. They are not necessarily repeated and may be conducted locally or externally depending on the subject matter. In most cases technical assistance will be required, for example in Food Processing, Wood Processing, quality control, and meat processing.

For the Standards Officer an amount not less than 10 million VT should be reserved for equipment and library. Some of these may be obtained through international technical assistance or through bilateral aid.

It is also recommended that at the appropriate time say early 1988 an application is made to the International Standards Organization (ISO) for country membership.

## 6.1 Quality Control (Standard Officer)

### 6.1.1 Objectives

To expose the newly appointed Standards Officer through lectures and practical exercises in the various aspects of standardisation and basic requirements of a standards office. Basic training is needed in quality control (QC) and reporting inspection planning, general guidelines for control and regulation of manufacturing process, statistical methods in QC, quality specifications for out-going and income products, international standards, introduction to basic metrology in mechanical industries measuring equipment, maintenance and monitoring of measuring equipment and tools, simple non-destructive testing, sampling, inspection and standards office management and reporting.

To establish and initiate the standards office an expert will be required for at least 6 months to train local counterpart and to help set up basic equipment, basic standards and standards library.

## 7. Concluding Remarks

The effectiveness of the industrial strategies proposed and the industrial development plan will be conditioned by the speed with which the missing skills and facilities are put in place. Since continuity in service is critical to the programmes success the training of local counterparts and skills will require the most urgent attention and priority of decision-makers in Government and Industry.