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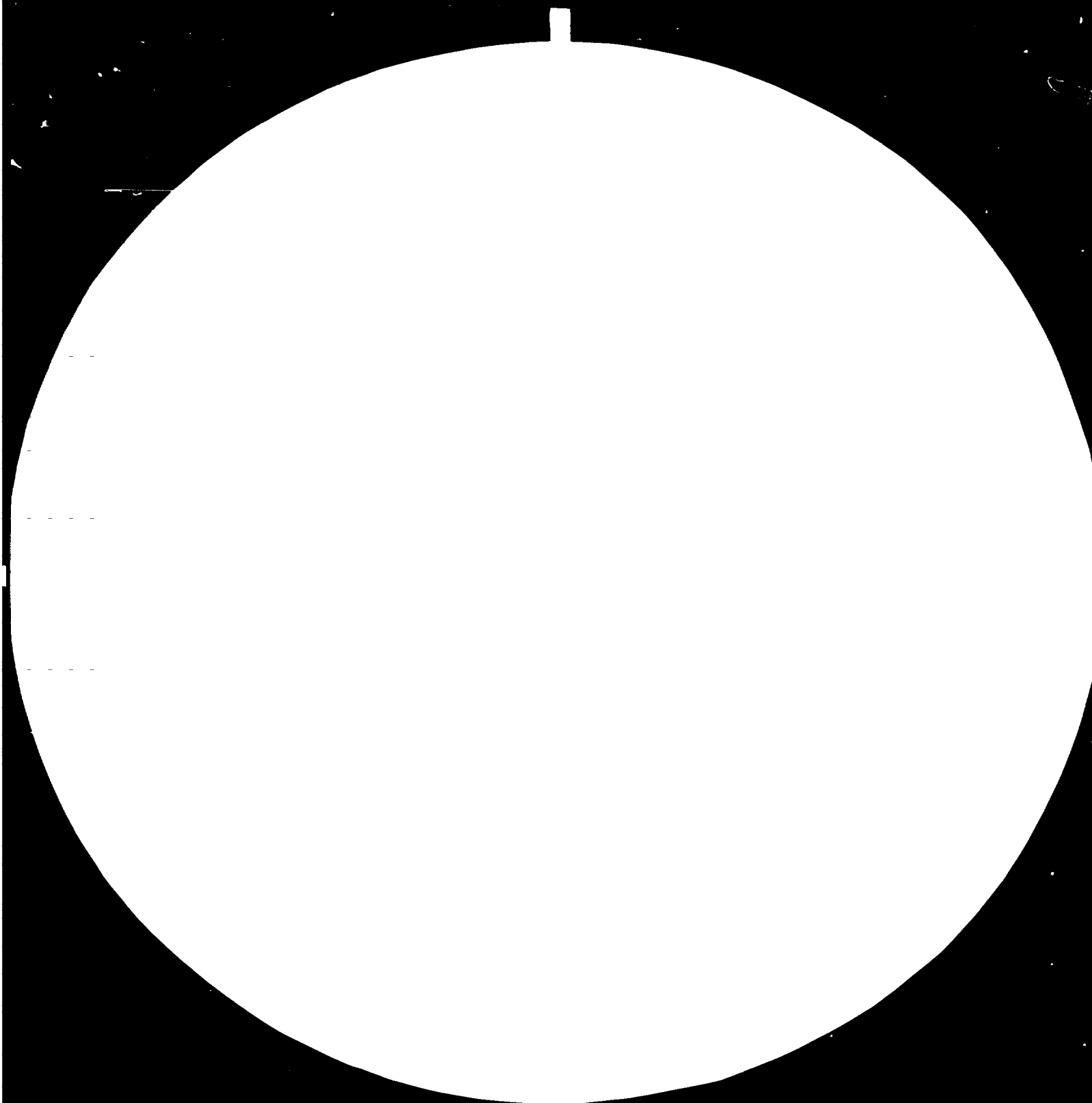
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RURAL AND URBAN INDUSTRIAL SUPPORT SERVICES PROJECT

FIJI

FIJ/73/008

Project findings and recommendations
Draft terminal report prepared for
the Government of Fiji

by

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for the United Nations Industrial Development Organisation
acting as Executing Agency for
the United Nations Development Programme

This draft report has not been cleared with the
United Nations Industrial Development Organisa-
tion which does not therefore necessarily share
the views presented.

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RURAL AND URBAN INDUSTRIAL SUPPORT SERVICES PROJECT - FIJ/73/008

JUNE 1974 to JUNE 1980

SUMMARY

INTRODUCTION:-

The project did not get under active way until June 1975 and paralleled the Fiji Government's Seventh Five Year Development Plan 1975 to 1980. It's purpose was to stimulate and offer support services to overall industrial development with emphasis on rural areas to encourage increasing participation for the indigonus population in industrial activities and to assist in achieving more equitable distribution of the benefits of industrial development between urban and rural areas.

ACHIEVEMENTS AND FINDINGS:-

The Project has been successful in so far as it has laid a firm foundation for further action in rural and urban industrial development. The Central Industrial Development Workshop Centre at Kalabu and the Industrial Development Workshop Centres at Savusavu and Nabuwalu and the progress that has been made toward opening Centres in Kadavu, Lakeba, Koro, Ngau and Marewa is tangible evidence of accomplishment in rural areas. A look at the map Appendix 1 shows good coverage of all of Fiji. Eventually Kalabu with its excellent facilities and trained personnel would become the hub of a network of rural centres through which an extension service into rural areas would be operated, personnel from rural areas would be trained to operate the rural centres and prototype products and industries would be developed. Continuing on the spot advice, service and encouragement would be given to prospective entrepreneurs in the

surrounding areas by trained personnel from these Centres and in this way rural industrial communities could be encouraged. Mobile service units operating from these centres could be used to expand the areas.

The project has been successful in giving much needed help to entrepreneurs who wished to start new industries or expand their present ones. Varying degrees of help in product identification, feasibility study, equipment and raw material selection, plant lay-out, operational planning, start up procedures and methods of financing has been given. Also the Kalatu Workshop is now supplying dies, jigs, fixtures and services of a sophisticated nature to the urban industrial areas and in this respect is the hub of a network of services to urban industrial development as well as the network of rural centres. These contributions have helped approximately 63 industries to expand or start since mid 1977 involving US\$9,900,000 capital investment and creating about 635 new jobs. A tabulation of these industries is given in Appendix II. It is regrettable that during the life of the project a principal engineer as a Government counterpart was not appointed to understudy the UNIDO Engineers who carried on these services. Unless personnel of equal abilities are appointed these valuable services to industrial development will falter.

The project has acquired all of the equipment for all of the eight centres and has assisted and advised toward all of the objectives as far as was possible. A complete list of non-expendable equipment purchased by UNDP/UNIDO is found in Appendix. III .

RECOMMENDATIONS:-

Recommendations have been summarised in the main body of the report on pages 39-42 in the following categories:-

- A - Recommendations for smooth working of future Projects.
- B - Policy Recommendations; and
- C - More Specific Suggestions for Speedy Industrial Development

INTRODUCTION

Project Background:-

The Industrial Promotion Division was established ten years ago under the Ministry of Commerce and Industry to perform set functions, but the Division gained its roots around 1974 with the approved sanction of about 10 staff members. A Techno-Economic Team on request to Government of India, visited this country in 1969 for seven weeks and submitted a book on "Report on Small Industry Opportunities and Policies in Fiji Islands". The recommendations made in this report were appreciated by the Government of Fiji and one of their team members stayed in this division for two years as Industrial Adviser. A few other experts also worked for fixed terms in this Division to advise on policies and actions pertaining to promotion of industries under the auspicious of UN agencies and Commonwealth Fund for Technical Cooperation. In 1974, the first Project Manager for Rural and Urban Industrial Support Services Unit was appointed. The project came into operation with set objectives and proposed UNDP contribution of US\$911,342 and Government contribution of F\$2,612,800. The second Project Manager joined in August, 1975 since his predecessor left for ESCAP after staying for five months only. The new Team consisted of additional two experts. The position of the approved inputs in the Division was as under:-

INDUSTRIAL PROMOTION DIVISION

Rural and Urban Industrial Support Services Unit

1. (Original Document)

<u>Post Title</u>	<u>Sanction</u>	<u>Posts Filled</u>	<u>Post Title</u>	<u>Sanction</u>	<u>Posts Filled</u>
<u>Experts</u>			<u>Counterparts</u>		
Industrial Economist	(1)	MBH1	Industrial Economist	(1)	short time
Industrial Engineer	(1)	(1)	Principal Engineer	(1)	MB1
Rural Indus. Expert	(1)	(2)	Economist	(1)	(1)
Project Manager	(1)	(1)	Senior Economist	(1)	(1)
		(Discon- -tinued)	Assist. Secretary	(2)	(2)
Associate Expert	(2)	(2)	Supervisor Workshop	(1)	(1)(in Sept. 1978)
		(after Sept. 1978)	Assistant Accountant	(1)	(1)
			Executive Officer	(1)	(1)

2. (Revision in 1977)

Experts:-

Industrial Engineers (2) (Mech.)	(2)
Industrial Engineers (1) (Chem.)	MB1

It may be noted from above that in 1975 most of the project expert posts together with the counterparts were filled out for the Principal Engineer who was not available locally. After two years working, it was decided during the first Tripartite review held in August 1975 to implement

changes in personnel. A copy of the report of this review is appended as Appendix IV. Technical Experts having desired experience and background were to work in different areas of Fiji to achieve the project objectives effectively. The two Industrial Engineers were appointed in 1977 and they are carrying on with their work upto date.

The Central Industrial Development Workshop, Suva was to perform as the main workshop and perform additional functions to manufacture tools, dies, jigs and fixtures etc. The two Associate Experts working presently in the Project had been recruited for each of the workshops at Kalaba and Savusavu.

Providing techno-managerial training to industry and officials in developing countries is a very important feature and therefore, a few programmes were proposed to be implemented in the project document. A group study tour of three senior officials was dropped because the officials later, had enough opportunity to visit many countries under other aid programmes. Training of small entrepreneurs was still considered very important and firstly a team of six persons went to South East countries and later a group of 10 trainees went to India under ITC programme of Government of India. Certain local training courses in accounting and management were also conducted. A few officials from the Industrial Promotion Division and some private entrepreneurs were also sent by Government for training under other aid schemes. These activities helped to achieve the objectives of the project without specifically spending funds from the project.

Developing countries where rural population depend mostly on other

non-industrial avenues of earning; like farming, fishing etc; development and promotion of industrial activities is a time consuming and patient process which inspite of its slowness has to be pursued in the modern age of science and technology which has no other choice left. It is also understood from certain recent European Community survey papers that funding to set up mechanical workshops in the backward areas as a first step to attend to repairs of machinery and provide technical guidance is the right procedure to step into fulfillment of requirements for rural industrialisation. The Government of Fiji in coordination with UNIDO have started to implement this view point from sometime past and hopefully soon enough small industrial units with Government assistance shall come up around these workshops. Government of Fiji have constructed six factory buildings in Kolaba Industrial Area and three in Vatuvaga Industrial Area which have recently been given on rent to small entrepreneurs.

SUMMARY OUTLINE OF ORIGINAL AGREEMENTS

A request for the preparatory assistance was submitted from the Government of Fiji for "Rural and Urban Industrial Estate Support Services Project" No: FIJ/73/008/2/37 on 14th May, 1973. The preparatory work actually started from June, 1974 and the document was signed on 9th July, 1974. A full Project Document No. FIJ/73/008/2/37 was submitted in November, 1974 and was signed by all concerned in January/February, 1975. At that time the duration of the Project was envisaged to be four years, i.e. end of 1978. The UNDP contribution was envisaged to be US\$838,500 and Government contribution at F\$2,351,100. A Tripartite Review of the project was done on 23/26 August, 1976 represented by UNIDO, UNDP and Government of Fiji. (Appendix 17). With the amendments as decided during the Tripartite Review, certain changes were suggested as to the institutional framework and in regard to the objectives of the project. Regarding institutional framework, the Government intended to improve consultancy between the project and a number of other Ministries. A Management Board comprising of the following Ministries/Departments was suggested to be set up under the Chairmanship of Permanent Secretary for Commerce and Industry:-

- (a) Commerce, Industry and Cooperatives
- (b) Fijian Affairs and Rural Development
- (c) Finance
- (d) Town and Country Planning
- (e) Central Planning Office

The above Board would review the progress of the project and

assist in achieving its objectives. The Board would also advise the Government on suitable policy and strategy for the furtherance of development of small industry and also advice on required Administrative set up.

Referring to the objectives of the project, a shift in priorities towards a more equitable distribution of income between rural and urban areas was needed, and secondly the working of the immediate objectives shall indicate the associating role of the project with regard to the support services programme of the industrial promotion division of the Ministry of Commerce, Industry and Cooperatives. The objectives as described in the original and revised documents are as under:-

Original Objectives

Revised Objectives

Long Term

Long Term

1. to assist in achieving a growth rate of 4.5 percent per annum in industrial development and of 8% per annum in non-sugar industrial activities during the Sixth five year plan period;

1. to assist in achieving more equitable distribution of the benefits of industrial development between urban and rural areas;

2. to provide increasing opportunities for Fijian participation in industrial activities and to narrow the gap between urban and rural incomes;

2. to encourage increasing participation for the indigenous population in industrial activities;

Original Objectives

3. to contribute to creation of new job opportunities through promotion of new industrial activities, in order to meet to some extent the requirement of 6,000 additional jobs per year during the Sixth five year plan period;

Immediate

1. to evolve a suitable policy and strategy for the development of small and medium industries in rural and urban areas;
2. to encourage and operate common service facilities through a mechanical workshop and a wood-working shop in Watuqaq;
3. to organise and operate a Support Services Programme, including project identification and feasibility, a technical extension service, facilitation of financing and a marketing service;

Revised Objectives

3. to assist in creating some new employment opportunities for the new entrants into the labour force every year;
4. to work toward achieving the growth target of for the industrial development sector during the period up to 1980.

Immediate

1. to assist in the operation of a Support Services Programme, including project identification, and feasibility, a technical extension services facilitation of financing and marketing service;

Original Objectives

Immediate

4. to organise and operate a network of rural industrial services through location of service workshops in four rural centres;
5. through the activities of this project, to train a cadre of national officials able to operate independently a support Services Programme.

Revised Objectives

Immediate

2. to assist in the setting-up a network of rural industrial services through location of service workshops in a number of rural centres;
3. to train a cadre of national officials able to operate independently the Support Services Programme;
4. to assist in the setting up and operation of mobile training and servicing kits for the outer islands and other isolated areas;
5. to advise on the need for common service facilities for existing and new industries in urban areas.

During the first Tripartite review it was generally felt that the immediate objectives set in the original project document objective (1) (to evolve a suitable policy and strategy for the development of small and medium industries in rural and urban areas) has been satisfactorily achieved. Therefore, it was deleted from revised objectives.

Reviewing the long term objectives 2 and 3; it was agreed that the result of such assistance are developing slowly due to various internal and external problems although various projects were identified and studies undertaken. Main internal problem was understaffing and lack of assistance in professional background of available staff of the industrial promotion division attached to the project. The external problem was related to the fact that industrial promotion division has no authority to make all necessary decisions in the process of project identification to establishment of the enterprise. This was said to be a complex exercise in which many parties participate.

Due to the financial constraints of the UNDP Programme in 1976, a hard look was taken at the need for the workshop facilities likely to be established in Suva. After discussions, it was accepted to delete the wood working shop and strengthen the equipments for the mechanical workshop which would be stationed in Kelabu (new industrial area) at a later date. The funding of this workshop was deferred by one year. The appointed industrial engineer had been on a very long sick leave and later discontinued.

In regard to developing a network of rural service centres, the Government took steps to implement the objectives by identifying the centres and providing equipment worth 50,000. They are Lakeba, Koro, Gau and Macawa whose establishment is in pipe line.

During first review in 1975, certain changes were also made in the project personnel and it was decided to have three experts only from 1977; viz. Rural Industries expert, Industrial

Engineer (production) and Industrial Economist. Later, in a meeting held on 17th March, 1977 with UNIDO/UNDP and Government officials it was decided to have some more changes in the input of UNIDO experts. It was emphasised by the Government to have more engineers to work with the economic and marketing team of the Industrial Promotion Division. In this fashion they visualised a great deal more work and cooperation than before realised. Further, with a larger pool of technical know-how they hoped to reach out in to the rural areas where there is no technical know-how and that no industry starts without it. The reason for these suggestive changes was further explained in a letter in June 1977 from the Government of Fiji to UNDP. The Government made it clear that the previous experts did well in making valuable recommendations for industrial development and making contacts with prospective entrepreneurs and the entrepreneurs were contacting the team quite often for which the Government awaited results patiently. At the time of the Tripartite Review, the Project seemed promising and the Government trusted this was so but in the following months very little progress was made in bringing new industries into being. Something was lacking and the Government believed it was technical know-how. Therefore, under the changed policy on personnel, the two Industrial Engineers were recruited in 1977 and one of them is acting additionally as Project Coordinator also.

After the first Tripartite Review, the document was revised to No. IS/TB/OCS/3/01/57 realising the duration of project to six years (June 1974 to June 1980). This document was submitted in March, 1977 and was signed by UNDP in September/October 1977. According to the revised project, the UNDP contribution

is US\$911,542 and Government contribution is 352,662,000.
The cost of the equipment is shown as US\$12,087 in total during
full term of the project.

The second Tripartite Review of the Project was done in
January, 1979. Copy of this review is appended as Appendix V.
During review it was observed that the objectives of the Project
both long term and immediate were being met effectively.
Additional funds were sanctioned for equipment and now the
total equipment component for the Project is US\$175,350
against US\$178,500 as envisaged in the first document.
Presently the two Associate Experts have been working, one
at the Savusavu workshop and the other at Kalabu workshop.
The present project is ending in June, 1980 as per
recommendation four of the second Tripartite Review. It
was, however, mentioned also in the recommendations that
further UNDP assistance would be required after that date.

INDEX

(1) Main activities:-

The main activities of the Project have been summarized in form 'A' of each semi-annual report. A reproduction of the pertinent extracts are available in appendix VII for reference.

In order to understand the findings or conclusions, the main activities have been summed up as under:-

The first project team initially concentrated its efforts in analysing the socio-economic problems in the country, undertaking tours of rural and urban areas, identifying product lines for local manufacture based on imported figures and submission of a report to the Government of Fiji regarding the Policy and Strategy for industrialisation. During this time, a group study tour of 6 entrepreneurs was sent to South East countries and India. Requisitions were sent for the equipments of workshops to be situated at Vatuwaga, Suva as contemplated in the original project document. Reviewing the need of an establishment of workshops during first Tripartite Review, the woodworking Workshop was considered superfluous. Only one Central Mechanical Workshop was considered necessary to be established in the new industrial area at Kalaup, Suva.

Advises were rendered to the prospective entrepreneurs for opening small scale industries and initial help through turnkey projects were suggested.

The activities of industrialisation could not take a speedy start because the follow up was difficult, technological backing was lacking and the rural population have very little 'trade' experience.

After the second Tripartite Review the Management Board was meeting regularly and a modified approach to rural industrial development came into being partially because of the revised project document and particularly because it appeared that a network of rural workshop centres was the best if not the only means of achieving some of the objectives of the project. Flying trips and transitory campaigns into rural areas had failed. In mid 1977 a map was drawn similar to that of Appendix 1, which showed that reasonable coverage of basic industrial activities in Fiji could be achieved by combining the workshops planned by UNIDO and ^{those} planned by the Ministry of Commerce and Industry. It was an agreeable idea that these workshops could be potent instruments for achieving the objectives concerned with rural industrial development. Through these industrial development workshops centre, as they start, shall function for providing industrial extension services also such as project identification help in preparation of feasibility studies.

facilitation of financing and marketing services in rural set up in outer islands with an easy liaison with headquarters. The officials who would be trained to man the Industrial Development Centres at a later date would then constitute 'a cadre of national officials able to operate independently the Support Services Programme.'

The above programme to start with establishment of a few service workshops itself could not take quick momentum because rapid acquiring of suitable land and buildings remained a major problem. The achievement of overall project's objectives have been limited also because more counterparts could not be recruited and trained. Trained cadre of national personnel to operate the industrial support services are more and more required in order to make these centres operational. However, the experts did their best to order most of the equipments for all the workshops and other services were rendered as far as possible to achieve immediate objectives as laid down.

The outlook at the end of 1977 seemed bright as reflected in the progress from the July to December, 1977 semi-annual report. The two Industrial Engineers started work during this time. By September, 1978 the Central Industrial

Development Workshop was ready for opening by the Rt. Hon. the Prime Minister of Fiji with equipment worth \$25,000. The equipments were not sufficient to make the Workshop a 'Central Workshop' for imparting training and to perform common facility services and supply press tools, dies and fixtures to the industry. Addition was made to the list and more purchases were sanctioned. At this stage one Associate Expert (Mechanical Engineer) joined Kalabu workshop. His presence was very useful especially in the stage of installation and trial run of machinery. The activities of providing services in the manufacture of press tools, dies and fixtures is yet to start since equipments have not fully arrived. Other industrial workshops and common facility centres have also started progressing as described later. The progress towards completion of the rural centres and the recruitment of counterparts as per schedule had been slow. This is further explained in the semi annual report of July - December, 1979.

Apart from providing techno-managerial assistance to about 65 Industrial units which have come up in the past three years providing employment of over 600 workers with an investment of about \$10 million, the Central Industrial Development Workshop and Mobile Workshop are also in operation. The Industrial Workshops at Savusavu and Tabouwalu are likely to

be in full operation shortly. The Industrial Workshops proposed at Kuluva for which the equipment has almost arrived is not yet ready as far as building is concerned and this will take sometime.

In nutshell, although the Project is somewhat behind schedule compared with the work plan, but the activities have made good progress in achieving the objectives to industrialise Fiji not only in urban areas but also in rural areas. Continued efforts to keep the activities going in a planned manner would show the path of further success. A firm foundation is laid.

(2) Actual Findings:-

Project Staff:-

- It should be observed from the original project document that four experts were sanctioned and three were in position almost from the start in 1975. The post of industrial economist could not be filled and while certain names were being considered, financial constraints were imposed in United Nations Organisations. The post of Project Manager was also discontinued after 1976. The Industrial Engineer recruited along with the team was sick for most of the time and he later discontinued. At that time, an Industrial Engineer working under Commonwealth Fund for Technical Cooperation assisted the Project as and when necessary. The Project was later revised in 1977 and the strength of experts was reduced to two Industrial Engineers, and two Associate Experts. However, there was no delay in recruitment of International staff for the Project except an Industrial Economist in the initial stages.

- Regarding recruitment of the counterpart personnels to the Project it may be noted that no special appointments were made and all the staff members in position were actually working for the Industrial Promotion Division. Part-time services were available as and when required by the Project staff. An observation was made during the time of Tripartite Review that while the Experts could render technical and managerial advice the primary responsibility of pushing Project and their execution to achieve laid down objectives should be with the Government officials; but with the spirit of team work everything went on well even if at times the experts had to be more persuasive.

The post of an Industrial Economist remained filled up for a short time by an expatriate from United Kingdom employed by the Government of Fiji in 1978. There were two other Economists working in the Division. The post of a Principal Engineer could not be filled although it was advertised two times by the Public Service Commission. Certain interviews were held but no suitable person could be selected. Gap in communication on technical matters was felt throughout the life of the Project although other counterparts helped as far as they could. It is similarly difficult to recruit supervisors especially for the workshop in Savusavu and workers for the Workshops funded by ^{UNDP} ~~UNDP~~ at Kalabu, Savusavu and Labouvalu. This does not mean that the Government did not try to employ suitable persons against these posts but it is difficult to get technical skills for remote

places especially when there are no residential facilities available to the staff. The Government is recently aware of these difficulties. The workshops at Savusavu and Malowalu have not yet started but if the recruitment of technical staff is not done in time, it could further delay the setup.

Administrative Setup:-

- The functional set up of the project is within the Industrial Promotion Division of the Ministry of Commerce and Industry, but the project was an identity in itself. A senior Assistant Secretary was supposed to be the counterpart of the Project Manager who went on long study leave to Sussex University and on return he resigned. The Assistant Secretary (Industry) was working in his place and he was later promoted to Senior Assistant Secretary who now works with the Project Coordinator as his counterpart on all matters on execution and administration. Lately, a new post of 'Director of Trade and Industry' has been filled by an experienced officer who had worked in this Ministry for a long time earlier. It was also observed that lot of consultations were necessary between the Project activities and other Ministries. In order to facilitate work, a management board was recommended during Tripartite review of the project in August 1976 but except for a few meetings they were not attended by top officials and it lacked spot decisions. Currently, various Ministries and Departments are involved in setting up Industrial Areas/States namely Ministry of Commerce and Industry, Ministry of Urban Development, Ministry of Works, Ministry of Lands, Ministry of

Finance etc., and therefore delays can not be pinpointed. Citing an example, the dispute in running a road across the industrial area in Savusavu took a very long time in finalisation and setting up of the workshop.

Machinery, Equipments and Materials:-

- A delay occurred in receiving equipments for the workshops according to the target dates as envisaged in the first document. During the first tripartite review in 1975, it was decided to reduce U.N. expenditure and the establishment of workshop was deferred. The exercise started again after the first Industrial Engineer joined in July, 1977. Almost all the requisitions along with quotations from possible firms of suppliers were enclosed in order to facilitate ordering of the equipments at the headquarters and their action was prompt. A bottleneck again occurred while in early 1979, after the recommendations of second Tripartite Review, the release of money was not communicated to the Purchase and ordering Section at Headquarters. This happened probably due to delay in signing the Project Document jointly by UNDP, UNIDO and Government of Fiji. Another reason for delay in getting total equipments much before the project ends is the fact that total money has been released to the Project on a piecemeal basis. The initial selection was based on lower amounts available and pre-planning for spending the full amount was not possible until August 1979.

Advice rendered:-

- Advice on policies of industrial development to Government, preparation of project profiles for taking investment decisions; advice to start new industries in private sector and Industrial Cooperative, trouble shooting in factories, Machinery layouts and installations and trial run of equipments were all very well covered within the activities of the project experts.

(a) Submissions:-

The following submissions and papers were written to help the Government in formulating their own policies pertaining to industrial development:-

1. Regarding assistance from European Economic Community.
2. Regarding proposed legislation to regulate business enterprise.
3. Regarding proposals for Japanese Technical Aid
4. Submission to Government on policy and strategy of Industrial development (main report).
5. Regarding Utilization of whole account for Industrial development presented to Coconut Advisory Council.
6. Regarding concept of backward industries and its development.

7. Regarding aspects of technical appraisal of development projects.
8. Regarding details of entrepreneurial assistance provided through the industrial promotion division of the Ministry.
9. Regarding promotion and development of rural industries visa-vis review of Development Plan 7.
10. Submissions on rural industrial development schemes.
11. Regarding its concept and ways to attempt to launch 'Intensive Industrial Development Campaign' in Fiji.

(b) Feasibility Studies:-

Various project profiles were prepared to help the investors in taking investment decisions. In many cases, where scope for establishment of not more than one unit appeared; the schemes were prepared for individual entrepreneurs and no publicity was given and schemes were not circulated:-

Auto mufflers	Lead pencils
Bolts and nuts	Manufacture of Ice locks
Camphor tablets	Paper bags
Coir defibering (Jute)	Paper pins and Tea clips
Concrete blocks	Polythene bags
Crown Corks	Pop corn

Dot pen	777 Kilos
Electrical Accessories	Coconut cane processing
Envelopes	Sewing thread reels
Exercise note books	Shoulder bags
Fruit Preservation (Printed)	Small Rice Milling Unit
G.I. Buckets	Small tannery
G.L. S. Lamps	Small joinery and carpentry unit
Guava Products	Stainless steel utensils
Ice Cream cones	Washing soap
Incense Sticks	Wooden Toys
	Wood Screws

(c) New Industries - selection of processes and equipments:-

Advice to start new industries was rendered to many, but the following new industries have come into existence due to the efforts of the project (mainly in last 3 years):-

I. Rural Areas

(a) Already set up

Aluminium joinery
Boat building
Camphor
Candles (decorative)
Chalk
Chicken Feed
Gurry Powder
Electronic repair shop
Envelopes
Fruit Juices
G.I. Buckets and Lids
Incense sticks
Nylon ropes
Sanitary articles (Printed)
Tapioca Flouring

(b) In pipe line

Coir defibering and coir products
Fruit Juices
Ice Cream
Mango juice
Paper bags
Wooden Furniture

These are 24 units with an approximate investment of Rs.1,00,000 being

II. Urban areas

(a) Already set up

Aluminium utensils
Aluminium windows
Auto mufflers
Cassette recording
Chocolates/snackfood
Confectionery
Desiccated coconut
Envelopes
Hand rolled cigar
Ice cream
Metal casting
Peas mill
Plastic buckets/hangers etc.
Powdered milk packing
PVC bottle
PVC rigid pipes and metal
containers
Stainless steel utensils
School bags
Solar heaters
Steel wool packing
Steel wire drawing
Wire nails

(b) In process

cut knives
Dot pen
Drinking straw
exercise books
Fertilizer and sulphuric Acid
Paper pins and pen clips
Plastic ball
Polythene bags
PVC cables
Sanitary towels
Shirts
Terry towels
Wooden ruler
wood screws

These are 39 units with an approximate investment of Rs. 500,000 giving employment to about 570 workers.

(d) Success stories:-

Success stories of various firms were published in daily newspapers whose titles are as under:-

- | | | |
|--|----------------|-----------------------|
| 1. Roadway mufflers
Vatuvaqa
Suva | manufacturing; | auto mufflers |
| 2. Dee Dee Stationeries Ltd
Lami | " | knives |
| 3. Dominion Aluminium Works
Lami | " | aluminium
utensils |
| 4. Jolly Hardware and Milling
Co. Ltd.
Lautoka | " | motor boats |
| 5. Nadi Industrial Coop. Society
Nadi | " | incense sticks |
| 6. Poly Products Fiji Ltd
Vatuvaqa
Suva | " | aluminium windows |
| 7. Ropes (Fiji) Ltd.
Nausori | " | nylon ropes |
| 8. Selflok Aluminium Joinery
Kilabu | " | aluminium joinery |
| 9. Saituri Feed Mills
Nausori | " | chicken feed |

We are enclosing herewith a copy of photocopy of newspaper cutting in respect of the production of Nadi Industrial Cooperative Society, manufacturing incense sticks. This unit is being provided intensive techno-managerial assistance. It is a small scale operated enterprise employing direct and indirect labour force of 120 workers.

(9) Travelling shooting:-

The team also helped in travelling shooting by actual visits to factories. The places are mentioned below:-

1. Carlton Brewery, Suva - welding of stainless steel components.
2. Dominion Aluminium Works, Suva - Regarding power press operations and spinning.
3. Lees Trading Co. Lautoka - Regarding conversion of press tool dies into metric components.
4. Top Top Ice Cream Manuf. - Fixing of high speed paper cutting machines.
5. Ginner and Co. Kilauea, Suva - Regarding Plastic Die setting, moulding and water circulation arrangements.

(f) Floor plans:-

Assistance was also provided to the industrial units in preparing machinery layout and help in installation of equipments. A few of them are listed as under:-

1. Dominion Aluminium Works, La - Utensils manufacturer
2. Kolitagane Builder, Kalabu - Buckets manufacturer
3. Maganlal Jiwa & Sons Ltd. La - Confectionery
4. Finner and Co. La - Plastic Injection moulding

(g) Trial run of plants:-

The team also assisted many industrial units in their crucial time of first trial run of the machinery. The following units were assisted:-

1. Broadway Motors, La - Pipe bending equipment and spot welding unit.
2. Central Nijim Cooperative Association, Namori - Yaqona pounding mill
3. Express Selfloc Aluminium Joinery, Kalabu - Nitro cutting machine
4. Kolitagane builder La - B.L. works plant
5. Manukui Cooperative, La - Grinding Mill

6. Nadi Industrial Cooperative Society - Incense sticks manufacturing
Nadi activity
7. Makurukuru Cooperative Society - Milk making machine
Lami
8. Poly Products (Fiji) Ltd - Louvre frame manufacturing
Vatuwaqa plant
9. S.D. Camphor Manufacturing Co. - Camphor tablet making machine
Nausori
10. Pusi Ram Khelawan - Coloured chalk manufacturing
La
11. Waituri Rice Mill - Chicken feed equipment
Nausori
12. Wincer and Co. - Injection moulding machine
Suva and design of water
circulation arrangements

(h) Opening of Central Industrial Development Workshop:-

September the 8th, 1973 was a very memorable day for Fiji when Rt. Hon. The Prime Minister of Fiji Sir Kamisese Mara visited a few small scale factories in Vatuwaqa and Kalabu Industrial subdivisions manufacturing desiccated coconut and noodles; plastic cups, hangers and buckets; aluminium windows and doors; and overhauling/repairing of automobile engines for trucks and cars. On the same day inauguration of Central Industrial Development Workshop and Mobile Workshop Unit was performed by the Prime Minister amidst large gathering of industrialists, Government officials and Ministers etc. Messages from Hon. Pohnson Lumanan, Minister for Commerce and Industry, and the Prime Minister for the occasion are reproduced in Appendix XI.

(i) The following workshops are being established within the objectives of this project:-

1. ^{UNDP}
~~Equipments funded by UNDP:-~~
Central Industrial Development Workshop, Suva (Ready) Working
Industrial Development Workshop, Savusavu (Ready)
Industrial Development Workshop, Matousulu (Ready)
Industrial Development Workshop, Kadavu

2. Equipments funded by Government of Fiji:-
Common facility Workshop, Laketa (Ready) Working
Common facility Workshop, Koro
Common facility Workshop, Ngea
Common facility Workshop, Nadi

3. A Coir Complex is coming up at Laketa for which building is almost ready and equipments arrived. It is one of the pilot projects launched by Government of Fiji to produce fibre from Coir husks and produce by-products like ropes, twines, door mats etc at the cost of around F.200,000. Annual production of fibre shall be about 150 tonnes and the entire setup may start trial production by June, 1980. Another unit of Copra Oil mill, established by the Laketa Cooperative Association is also coming up near the complex. All techno-commercial assistance in setting up the complex is being provided by UNDP Industrial Engineers. Full set of machinery is supplied by a firm from India.

4. Mobile Units:-

(a) The mobile workshop has been operative since September, 1978. It has visited various places to provide technology, demonstration and common facility services at the very door steps in rural areas. This has been jointly funded by ~~UNDP~~ ^{UNDP} and Government of Fiji. It is hoped that intensive usage of these facilities shall be made from 1980 onwards.

A fruit and vegetable processing mobile demonstration-cum-marketing van is likely to operate during 1980 and onwards with funds provided by Government of Fiji and the services of technologist to be provided by Government of India. Complete planning of the unit together with the design of van etc., has been completed with the assistance of Industrial Engineer.

(j) Services being rendered through Workshops:-

The following industrial units were provided common facility services through the Central Industrial Development Workshop, Kalabu, Suva:-

1. AHI Stinson, Suva - regarding manufacture of punching die.
2. Roadway Motors, Suva - regarding manufacture of metal punching die.
3. Cope Allan, Suva - regarding manufacture of hand engraving press tool die.

4. Less Rolling Co. Suva - regarding ressigning of
in press tools
5. Suva Larded Co. Suva - regarding repair of
automatic sweets making
machine
6. Suva Stationery, Suva - regarding repair of staple
manufacturing machinery
7. Hip Top Ice Cream Co. - regarding replacement of
component to the paper
cutting machine
8. Toys (Fiji) Ltd. - regarding repair of wood-
working machinery
9. The Lithouse, Kilauea's - regarding design and
Juala fabrication of candle
making equipment.

Quite a considerable progress has been made in just over one year
time in the activities of workshop with scanty labour force. Apart
from rendering Common Facility services as mentioned earlier, develop-
ment of various prototypes were made, listed as under:-

1. Ceramic items & manufacturing machinery:-

(Designed and fabricated in workshop)

- | | | |
|----------------------------|---|-----------|
| (a) Oil presses for kila | - | 5 numbers |
| (b) Clay Mixer | - | 2 " |
| (c) Vacuum water separator | - | 1 " |
| (d) Ball Mill | - | 1 " |
| (e) Tile rolling press | - | 2 " |
| (f) Roller mill | - | 10 " |

(The total cost of the machinery is around F\$5,000)

2. Bio-gas plant of 2 cu. ft capacity per day.
(This plant costed about 2500.00 only)
3. Retort for making charcoal.
4. Double wall and single wall charcoal burners
5. Sawdust burners
6. Ethanol distilling unit

Cabinet and the Prime Minister took lot of interest in the developments done by Central Industrial Development Workshop in regard to fuel saving devices and on 12th November, 1979; a few Cabinet Ministers accompanied by the Prime Minister visited the Workshop after a lapse of about one year after its inauguration. Great interest was shown by the visiting team and about 75 burners were thereafter produced in the workshop to be sold for public acceptability. The reaction of users has been extremely nice till date. The designs and knowhow of prototypes developed in the workshops can be released by Government to be undertaken by small scale factories intending to go into regular production. Hence find enclosed photographs connected to prototype developments in Appendix XI.

(x) Other significant achievements - their quantitative representation:-

Specific achievements can be described in quantitative terms resulted through the provision of techno-managepril assistance by the experts. A number of industries have come up and some are in the process of being set up. This has added to the promotion of industrial growth in Fiji both in Rural and Urban areas.

It is estimated that over 100 workers would be employed in about 10 industries with the capital invested around 10 million. The cost of equipment is estimated to be around 5 million. The project helped indirectly also in establishment of various industries by providing technical support and advice to Industrial Review Committee/Business and Industrial Development Committee whenever such advice was sought by the Government.

The experts also emphasised that the cost of buildings should be reduced to a minimum so that small industries could invest maximum in productive factors. The idea had practical acceptability in the private sector but all government buildings and workshops are constructed through PWD who have to work under laid down rules. The building for the Joir Complex has a local touch and local seasoned timber has been used for pillars and rafters etc.

Another achievement that the Project could boast of is the acceptability by Government of ideas to construct a few factory buildings to start with to be provided to deserving cases on rent to start small scale industries. The first of its series were allotted to six small scale industries in Kilatu sub-division. Another three small scale factory buildings have been constructed and allotted in the Watwaga Industrial Area on nominal rents. There are evident signs that more construction activities may even be pursued now with the aid funds from other countries.

Small scale Industries in Fiji have recently obtained a good variety and share of production in different product line. Many of them are well comparable in price and quality with imported stuff. The following products presently made in small or medium scale industries are protected for importation under the Government legislation:-

Steel drawn wire used in reinforcement

Incense sticks

Baking Powder

Polyurethane Foam

Aluminium pots and pans

Paper envelopes

PVC rigid pipes

Window louvre frames

Nylon ropes

Split peas

Deodorant blocks

Candles

As regards to training of counterpart staff, much was achieved without spending heavily from project funds since a few counterparts and other Government officials connected to industrial development activities travelled overseas for attending seminars and short term courses.

A few courses they attended are listed as under:-

1. A Senior Assistant Secretary was sent to Sussex University - United Kingdom to do post graduate studies in economics relevant to the post.

2. An Assistant Secretary initially went for training at Small Industries Extension Training Institute (SIETI) Hyderabad for a 10 weeks course on 'Small Industries Promotion in Developing Economic'.
3. An Economist attended a Workshop on Small Enterprise Development for Asia and the Pacific Region in Turin, Italy.
4. An officer from the Industrial Promotion Division went to China to attend a 'Workshop On Small and Medium Scale Industries', and to Small Industries Extension Training Institute (SIETI) Hyderabad on 'Information Storage and Retrieval System'.
5. A Senior Assistant Secretary who is also the Project counterpart designate, went for a 6 months course to Bangkok for ISEIP Orientation programme.
6. Another Senior Assistant Secretary went for a 3 week course to Bangkok for 'Trade Information Services' Seminar. Later he also went to a Seminar on Generalised System of Preferences (GSP) to Western Samoa for two weeks.

7. The Hon. Minister of Commerce and Industry accompanied by the Principal Assistant Secretary (Trade) attended UNIDO III Conference at New Delhi attended by over 30 delegations from all over the World. They later visited Trade Free zones in Sri Lanka and Singapore.

8. A Study Tour of six entrepreneurs was sponsored by the Rural and Urban Industrial Support Services Project sent from Fiji to India, Sri Lanka and later to Singapore in March, 1976 for 8 weeks. The programme in India was taken care by Small Industries Extension Training Institute, Hyderabad. Subsequently in 1978, 10 entrepreneurs visited India under the Training programme sponsored by Indian Technical and Economic Cooperation of India and the course was organised by SITT Hyderabad for 10 weeks.

RECOMMENDATIONS

The recommendations made in this report are based on the experience gained after working in Fiji during the implementation of this project.

There are certain recommendations which need attention of the Government to be focussed in order to make the working smoother for future projects; while others are the policy recommendations and lastly are those suggestions which would help the Government to accelerate development of small scale industries in urban and rural areas. In each of the above categories, the recommendations are described according to the priorities awarded:-

A - RECOMMENDATIONS FOR PROMPT OPENING OF SUPPLY PACKS:-

Regarding counterparts and skilled workmen:-

- (a) The counterpart for the project team Leader should preferably be a senior Government official who can take most of the decisions at his level.
- (b) The counterparts should be appointed to help, learn and take initiative in achieving the objectives of the project instead of being available at part times only.
- (c) The recruitment of counterparts should be made at the proper time to enable them to equip themselves with the requisite experience during the period of stay of the experts.
- (d) Similarly the requirements of skilled workmen in the workshops should be timely assessed and arrangements for their recruitments should be made catering to the time of supply of equipments. Additional incentives may

be considered to be provided in remote rural areas such as free house to attract technical hands from urban areas initially. Such needs are visualized at Nabouwalu, Ngau, Koro and Kadavu in near future.

B - POLICY RECOMMENDATIONS:-

- (1) Presently there is no definition of a small scale industry in Fiji. In order to work systematically for advancement of rural industries, there is a need to define a small scale, cottage or tiny industries - whatever name is given.
- (2) Fiji is a small country in size and population. Development of small industries have a large scope as compared to big industries. These industries could be import substitution industries (using imported raw materials essentially) or those using indigenous raw materials only. Like many developing countries, Fiji may also consider providing preferential treatment to small scale industries in order to give suitable incentives and encouragement to entrepreneurs. Some of them are likely to be:-
 - (a) Supply of machinery on hire purchase scheme
 - (b) Charging lower rate of interest
 - (c) Quick protection through licensing or high tariffs.
Quality and price considerations should be met first.
 - (d) Channelised marketing for articles produced in remote rural areas.

- (e) Price preference in Government purchases for small industry products.
 - (f) awarding of concessions automatically to the units applied for and registered as 'small scale units'.
- (3) Recommendations for the establishment of an Industrial Development Corporation was suggested with the following major functions in the report of 'Submissions to Government' in 1976.
- (i) Creation of infrastructure in the form of industrial estates.
 - (ii) Procurement and supply of machinery on a hire purchase basis.
 - (iii) Procurement and supply of raw materials and ancillary items to industry.
 - (iv) Marketing Assistance.
 - (v) Equity participation in ventures.
 - (vi) Establishment of laboratories, tool rooms, prototype centres etc.

During the 1st Tripartite Review in 1976, the Government of Fiji suggested that they see no possibility to realize this idea in the near future. We still feel that a centralised agency to perform various functions to develop small scale industries which could avoid duplication is a worthwhile recommendation and Government of Fiji may invite a team of experts from IDB or UNIDO to look into the details under the present circumstances.

(4) The Government of Fiji appears to have been considering total development of the rural areas by establishing Rural Local Centres in which case the industrial development schemes in a consolidated manner could fit in. A programme of this nature has been conceived which could include establishment of rural service centres, construction of staff quarters and light industry estates. Industrial land shall have to be developed for a suitable infrastructure. The rural service centre workshops would comprise of building and machinery. Staff quarters would be constructed for two technicians. Light industry estates could be developed with a minimum of three factories equipped with machinery. Entrepreneurs may initially pay rent for factory operations and thereafter purchase on hire-purchase scheme.

In order to achieve the above, certain requirements shall have to be fulfilled such as identification of suitable industrial ventures, availability of funds, provision of availability of managerial and technical know-how and training through rural workshops. It is recommended therefore that the Government might think of establishing "Rural Service Centres and Light Industry Estates" in the next five year plan in a planned manner. Glimpse of our thinking has been shown in appendix III for which total funds of about F\$2.374 million may be roughly required. The source for these funds may be either the aid money from friendly government countries or International agencies. It would need further study on the subject by specialists.

C - RECOMMENDATIONS FOR TRADE INDUSTRIAL DEVELOPMENT

(1) Attention is drawn for the following recruitments in Suva:-

(i) A Principal Engineer at headquarters. Since this post could not be filled for long, international agencies may be asked to provide suitable hand for at least next three years. (Example - CPAS Recruitment)

(ii) A mechanical engineer at CIDA, Kalabu.

(iii) A storeman cum accountant at the workshop.

(iv) Skilled workmen in all workshops as suggested in each case to the Government.

(2) The immediate objectives of this project mainly covered providing technical extension services and start of workshops and rural service centres for being taken over by local counterparts in order to achieve long term objectives. Since all objectives have not been fully met within the time limit of the project and various activities are in the pipeline; it is recommended that the Government of Fiji may like to draw up a project document in continuity realising that the activities started so far should not be slowed down and that the development of industries is a continuous activity for which aid from external agencies have to be sought till local substitution could replace effectively.

(3) It is observed according to the classification of duty items in Customs Manual that many items are summed up together and it is difficult to get import

figures of several commodities which may have potential for local production. It is suggested that the Ministry of Commerce and Industry should liaise with the Ministry of Finance (Customs Department) and prepare another detailed classification list.

- (4) whatever information is available with the Industrial Promotion Division, whether in the form of list of suppliers of machinery, suppliers of know-how and technology, survey reports, installed capacity, market demand etc. should be all fed into a Data Bank and such documentation centre should be opened and made active especially when all Technical support to the division is being withdrawn by end of June 1980.
- (5) (a) In order to identify specific industries having potential in different areas, an area survey is beneficial. This survey could also help in determining priority areas for development during DPVIII.
(b) In order to examine the growth and potential of further expansion etc. of specific industries, this is the right time (towards end of the Plan period) for conducting industrial surveys and writing of reports with recommendations to Government.

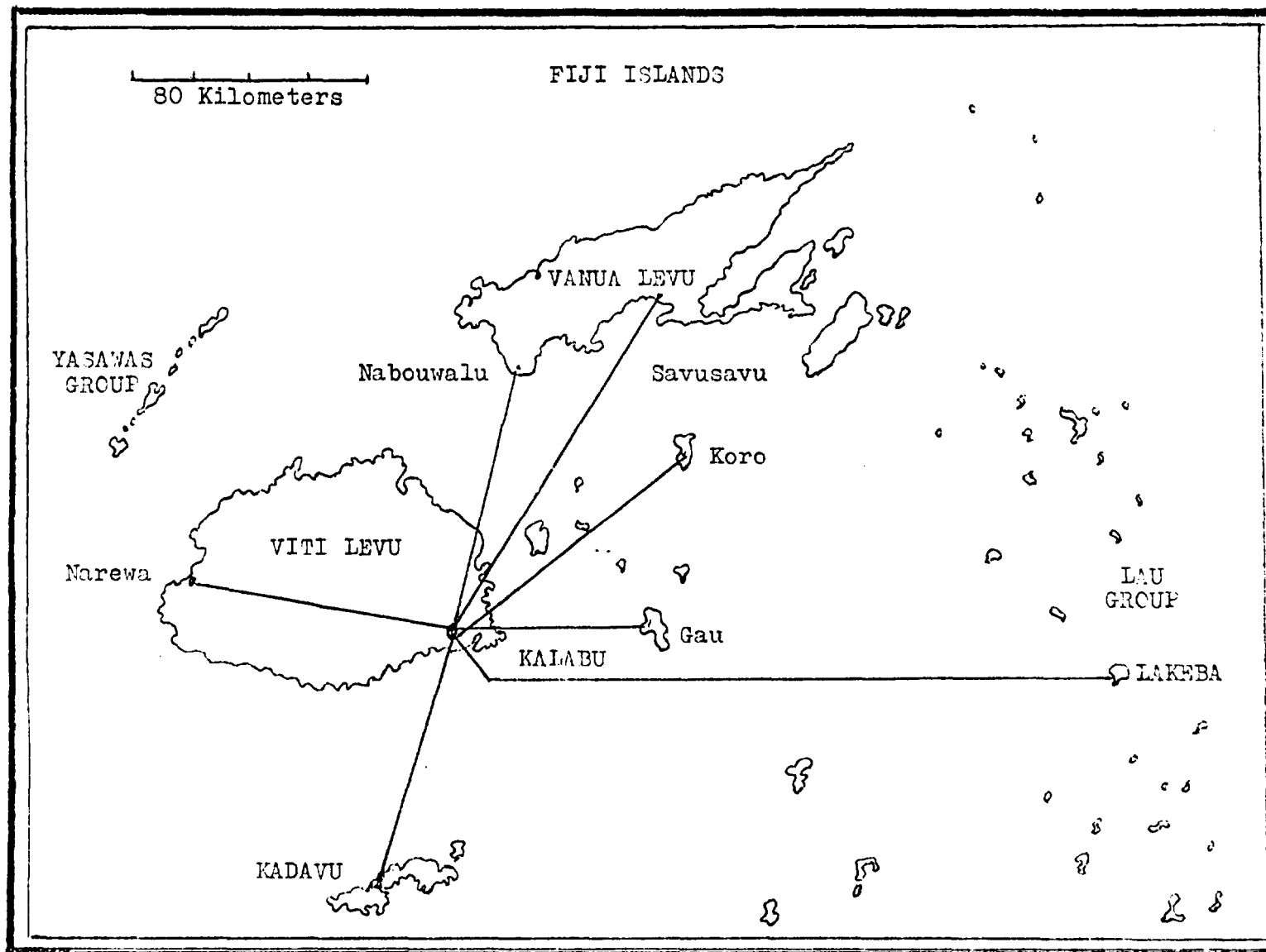
In view of above requirements; it is recommended that the Government of Fiji may invite some team for short duration to conduct the above surveys and submit reports. These activities may also be covered in any new project if being planned currently.

APPENDICES

- I Map of Fiji showing Industrial Development and Service Workshop Centres.
- II List of Industries Already Set Up and In the Process Of Immediate Setting Up During The Life of the Project (Mainly 1977 - 80) With The Techno Managerial Assistance Of The Experts.
- III Major Items Of UNDP/UNIDO Financed Equipment.
- IV Report Of First Tripartite Review Held 23 - 26 August, 1976 By The Resident Representative.
- V Report Of Second Tripartite Review Held 25 - 26 January, 1976 By the Resident Representative.
- VI Extracts From "Submissions To Government" regarding proposal of constituting an Industrial Development Corporation.
- VII Extracts From Semi-annual Reports.
- VIII Bibliography Of Documents Prepared During Project.
- IX Map Of Industrial Estates and Sub-divisions.
- X Success story of Nadi Industrial Cooperative Society - Cases of providing intense techno-managerial assistance.
- XI Reproduction of Messages etc. at the time of opening of Central Industrial Development Workshop by the Prime Minister of Fiji.
- XII Visit of Cabinet Ministers to Workshop to have a look on prototypes developed.
- XIII Proposed plan of establishment of "Rural Service Centres" and "Light Industry Estates".
- XIV List of UNIDO Experts employed during the project.

APPENDIX I

NETWORK OF RURAL INDUSTRIAL DEVELOPMENT WORKSHOP CENTRES



APPENDIX II

RURAL AND URBAN INDUSTRIAL SUPPORT SERVICES PROJECT
NO. FLS/75/003

LIST OF INDUSTRIES ALREADY SET UP AND IN THE PROCESS
OF IMMEDIATE SETTING UP DURING THE LIFE OF THE PROJECT
(MAINLY 1977 - 80) WITH THE TECHNICAL/MANAGERIAL ASSISTANCE
OF THE EXPERTS

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (F\$)	APPROX. NUMBER OF WORKERS
I. EXISTING FACTORIES			
(A) Rural Areas			
1. Mr Sukhnandan Waituri Feed Mill Nausori	Chicken Feed	\$20,000 Indian	5
2. Mr D. Kumar Nausori	Curry Powder	\$10,000	3
3. Mr Tevita Kolutagane Kalabu Industrial Area Kalabu	G.I. Buckets Tubs etc.	\$40,000 Indian	8
4. Mr Ramesh Patel P.O. Box 4 Nausori	Nylon Ropes	\$80,000 Taiwan	18
5. Manukui Cooperative Kalabu	Yaqona Founding	\$ 8,000 English	3
6. Mr Josese Musuka Nabua	Boat Building	\$ 3,000 Australia	2
7. Dee Bee Stationeries Ltd Lami	Envelopes	\$40,000 English	8
8. Makurukuru Coop.Society P.O. Box 3053 Lami	Chalk	\$ 5,000 English	3
9. Central Fijian Coop.Society Limited, Nausori	Yaqona Founding	\$10,000 English	3
10. Selflok Aluminium Joinery P.O. Box 6979 Kalabu Industrial Area Kalabu	Aluminium Joinery	\$20,000 Australia	6
11. S.D. Camphor Manufacturing Co. G.P.O. Box 23, Nausori	Camphor	\$ 3,000 Indian	2

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (\$)	APPROX. NUMBER OF WORKERS
12. Aquatron Electronic	Repairs of Electronic items	\$10,000 Taiwan	2
13. Mr M.S. Raa Lautoka	Sanitary Napkins (hand operation)	\$2,000 Indian	5
14. Margaret Klein Pacific Harbour Deuba	Candle Making	\$10,000 Local	3
15. Rural Ceramic Project Sigatoka	Ceramic items	\$10,000 Local	3
16. Kato Ice Cream Kalabu Industrial Area Kalabu	Juices	\$10,000	3
17. Castle Trading (SP) Davusavu	Defibering	\$40,000 Australia	8
18. Karewa Industrial Coopera- tive Society Limited, P.O. Box 193, Vadi	Incense Sticks	\$20,000 Japan	100
	<u>TOTAL</u>	\$340,000	190

Estimated Cost of investment (approximately) in the above industries employing about 200 workers - F\$800,000.

(B) Urban Areas

1. Mr C. Lodhia P.O.Box 16 Vadi	Powered Milk Packng	\$40,000 Australia	8
2. Mr Hasmukh Lal Desai Lautoka	Stainless Steel Utensils	\$100,000 Indian	15
3. Mercury Envelopes Ltd P.O. Box 625 Vadi	Envelopes	\$50,000 U.S.A.	10
4. Broadway Mufflers P.O. Box 3600 Vatuwaqa	Auto Mufflers	\$50,000 Australia	6
5. Finer Company Vatuwaqa, Suva	Plastic products (Expansion)	\$60,000 Taiwan	8

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (\$)	APPROX. NUMBER OF ORDERS
6. Ba Industries Ltd P.O. Box 113, Ba.	Wire Nails etc.	\$80,000 Indian	12
7. Dominion Aluminium Ltd Ba	Aluminium Utensils	\$140,000 Australia & India	15
8. Kwaliti Ice Cream Labasa	Ice Cream	\$30,000 Indian	4
9. Naganlal Jiwa & Sons P.O. Box 204 Ba	Snack Foods & Chocolates (Expansion)	\$50,000 Australia & English	10
10. Cashona Pacific Fiji Ltd P.O. Box 490 Lautoka	Hand rolled Cigar	\$24,000 Australia	12
11. Foly Products Fiji Ltd P.O. Box 1136 Vatuwaga	Aluminium Windows	\$50,000 Taiwan	8
12. Nagan Foundry P.O. Box 75, Ba	Metal Casting with Electrical Furnace (Expansion)	\$200,000 Australia	5
13. Mr Abdul Majid Lautoka	Solar Heaters	\$20,000 Australia	6
14. Mr Manilal and Sons Ba	School Bags	\$20,000 New Zealand	6
15. Mr Jaffar Ali Suva	Magona Grinding	\$10,000 English	3
16. Mr H.V. Patel Suva	Lass Mill	\$100,000 Indian	8
17. Mr G.D. Chand Suva	Confectionery	\$20,000 English/Local	5
18. Mr Lui Young Suva	Boat Building	\$10,000 Australia	4
19. Mr Irvin Patel Ba	Steel Wool Packing	\$20,000 Australia	4
20. Mr Victor Vatuwaga Industrial Area Suva	Plastic Injection Moulding	\$5,000 Indian	2

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (F\$)	APPROX. NUMBER OF WORKERS
21. Kumar Industries Suva	Cassette Recording	220,000 Japan	5
22. Punja and Sons Ltd P.O. Box 125 Lautoka	PVC Bottle (Expansion)	315,000 Taiwan	4
23. South Pacific Recording Ltd P.O. Box 17, Nadi	Cassette Recording	220,000 U.S.A.	6
24. Fiji Wire Industries Ltd Nadi	Wire Drawing	\$70,000 Australia	8
25. Lees Trading Co Ltd Lautoka	PVC Rigid Pipes & Metal Containers (Expansion)	\$150,000 Taiwan	12
26. Castle Trading (SF) Ltd G.P.O. Box 2702, Suva	Noodles and dissicated coconut	250,000 Taiwan	10
	<u>TOTAL</u>	<u>\$1,404,000</u>	<u>196</u>

Estimated total investment (approximately) in the above industries employing about 200 workers is F\$4,000,000.

II. FACTORIES BEING SET UP (IN PIPELINE)

A. <u>Rural Areas</u>			
*1. Raho Cooperative Association Ltd Rotuma	Fruit Preservation	240,000 Indian	10
*2. Lakeba Cooperative Association Ltd, Lakeba	Coir and Coir by products	360,000 Indian	15
*3. Ugra Sen Kalabu Industrial Area Suva	Paper Bags	240,000 Indian	5
*4. Swani Kumar Ency Maharaj Enterprises P.O. Box 787, Lautoka	Mango Juice	320,000 Indian	12
5. Southwest Joinery Korolevu Navoso	Furniture	220,000 Australia	3

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (F\$)	APPROX. NUMBER OF WORKERS
**6. Kato Ice Cream Kalabu Industrial Area Suva	Ice Cream	\$50,000 Italian	8
<p><u>NOTE:</u></p> <p>* Machinery Received</p> <p>** Machinery Ordered</p> <p>Estimated total investment (approximately) in the above industries to employ about 60 workers could be F\$600,000.</p>	TOTAL	\$240,000	58
	B. Urban Areas (In Pipeline)		
*1. Mr Ram Lal Labasa	Dot Pen	\$20,000 Indian	10
2. Heavy Chemicals Complex P.O. Box 60 Nadi	Superphosphate Fertilizers and Sulphuric Acid (large scale)	\$2 million Indian & combined	75
3. Ameet Emporium Ba	PVC Cables	\$125,000 Japan	10
*4. Akbar Engineering Watuwaga Industrial Area Suva	Wood Screws	\$50,000 Indian	12
**5. Hanif Industries P.O.Box 97, Lautoka	Polythene Bags	\$10,000 Indian	4
**6. Harseys Ltd Suva	Sanitary Towels	\$40,000 Taiwan	6
*7. Suva Stationery Ltd Suva	Paper Pins and Gem Clips also exercise note books	\$70,000 Indian	10
8. Mr Mudaliar Nadi	Wooden Rulers	\$50,000 Australia	5
*9. Mr Abdul Majid Lautoka	Elastic Balls	\$20,000 Indian	3
**10. Messrs Binda Maharaj Associates Suva	Drinking Straw	\$15,000 Indian	3

NAME AND ADDRESS OF PARTY	PRODUCT LINE	APPROX. COST OF MACHINERY (F\$)	APPROX. NUMBER OF WORKERS
11. Narotam and Sons Nadi	Terry Towels	\$100,000 Indian	15
**12. Iala Textiles Suva	Shirts	\$40,000 Japanese	9
**13. Mr Navin Patel P.O. Box 667 Ba	Buckets and Butt Hinges	\$30,000 Indian	12
	TOTAL	\$2,570,000	174

NOTE:-

- * Machinery Received
- ** Machinery Ordered

Estimated total investment (approximately) in the above industries to employ 175 workers approximately could be F\$4,500,000.

STATISTICAL SUMMARY (APPROXIMATELY)

<u>. TYPE</u>	<u>COST OF MACHINERY</u>	<u>TOTAL INVESTMENT (RS)</u>	<u>NO. OF WORKERS (NOB.)</u>
I A	340,000	600,000	200
I B	1,404,000	4,000,000	200
IIA	240,000	600,000	58
IIB	2,570,000 (including one large scale)	4,500,000	174
TOTAL	<u>4,554,000</u>	<u>9,900,000</u>	<u>635</u>

APPENDIX III

Major Items of EECN/ - Planned Equipment

<u>Item No.</u>	<u>Qty.</u>	<u>Description</u>
1	1	Project Vehicle, Toyota MK II Sedan
2	1	Project Vehicle, Toyota Landcruiser 1975
3	4	Lincoln AC 225/240 Volts ARC Welder
4	6	Walkdown 8" Heavy Duty Bench Grinder 1/2 HP 240 Volts 50HZ SPH with wheels
5	2	Rockwell Machine Model 3SH 6, 300/420/3/50HZ
6	1	Burring and Mixing Machine Model 42J Complete with 1 pair each of 42 J-35-36 Burring Heads, 42J-45-46, 47-48, 49-50, 51-52. Turn up Heads and 1 each 42J-53 and 42 J-54 closing Head
7	1	Rolling Machine Model 43-J fitted with 1 Pair of Standard 43J 3/8 inch single rolling heads
8	1	Wauchope No. 1 Jackscrews Tool Kit
9	2	HP 5 Drilling Machine, 1 H.P. 300/420V 3 PH 50C. Serial No: 09125-27
10	2	2000L Micrometer /o Jaws (0-25MM)
11	2	2000L Micrometer Kit W/BITS (25-150MM)
12	2	440MM-75MM Micrometer Depth Gauge (0-75MM)
13	1	Edwards Type 83 Slip Landing Roller 3/8 7732/77359
14	4	High Pressure Compressor Complete with Spray Gun

<u>Item No.</u>	<u>Qty.</u>	<u>Description</u>
15	4	Gas welding; air cutting plant
16	1	Heavy duty gas grinder, I.D. No. 38002
17	1	Weari Pattern Model 415, Precision Needle Millstone Mark J
18	1	Morris Knifoid all steel universal Lath Model 1415
19	4	Horow Model 250 Metal Working Lathes
20	2	Plain Horizontal Metric Milling Machine
21	2	Dividing Head and Tailstock, Model 0LX13
22	2	Raised Vertical Head, Model 0LX14
23	2	Cabinet with Electrical Panel, Model 0LX14
24	1	Model 122 Electric Tool and Cutter Grinding Machine Complete
25	1	Mill lat 1000 Model 0L1-01
26	1	Index Character w/ base
27	1	Index Character w/ standard stock
28	1	Precision Tool Room Lathe Model 40 (450 x 2000mm)
29	1	Turner Turning Attachment, 1000mm
30	1	Counter type Furnace
31	2	Discal driven Generator Set
32	1	Lathe Lath 140 (250 x 1200 mm)
33	1	Index Character Model 1200
34	1	Dust Extract Unit
35	1	High Speed
36	1	Non-Electro Magnetic Chuck
37	1	Lathe Model 250 Horow Ser. No. 1571 15699

<u>Item No.</u>	<u>Qty.</u>	<u>Description</u>
38	1	Chaping Machine "Ludia" Mod. L-150
39	4	Threading Tool - sets
40	4	Threading Tool-sets
41	4	Threading Tool-sets
42	4	Threading Tool-sets
43	2	Big Beaver Compressor Complete
44	2	Comet 3 Complete Gas welding and cutting plant in Metal case
45	1	Transarc Tradesman Complete
46	2	8 x 4 Combination Woodworking machines
47	2	130M Hitachi Bench Drills
	1	217 Utility Grinder
	1	317 Utility Grinder
	1	Dyno Combination Set
	1	Tanner bench mill
	1	130M Pedestal Grinder
	1	Drafting Machine and board
48	1	Hill and Howell 16 mm Projector
49	1	Kodak Brousel Projector
50	1	Hill and Howell Overhead Projector
51	1	35M Camera
52	1	MT Model 12000 4-spindle Milling Machine complete with dividing head, gear trains, rotary table, slotting head and hydraulic vice
53	3	Beddinghaus 10 in 10 and 12 in Shears
54	1	Beddinghaus 10 in 10 and 12 in Shears
55	1	Starrett set of Metric Precision Vise locks
56	1	2 ton North 10 Lift

<u>Item No.</u>	<u>Qty.</u>	<u>Description</u>
57	1	Fein Electric Shears
58	1	Fein High Speed Grinder
59	1	Mitsubishi Canter Model T 210F2H Chassis used for Mobile Unit

The following items have not been received as of date of this report but will probably be received by 31 June, 1980.

60	1	20" Ball Jointed Band Saw
61	1	15 ton Screw Press

SLI/73/008 - WORKING PAPER
SUPPORT SERVICES UNIT

TRIPARTITE REVIEW REPORT

y

THE NATIONAL BOARD OF THE
UNITED NATIONS DEVELOPMENT PROGRAMME
FOR THE 1970s

Persons Attending:-

Mr Akula Savu, Director, Central Planning Office.

Mr Gyan Singh, Permanent Secretary, Ministry of Commerce,
Industry and Co-operatives.

Mr Lal Ram, Assistant Secretary, Ministry of Foreign Affairs.

Miss Finau Tabaucoro, Central Planning Office

Mr S. Westra, Deputy Regional Representative, UNDP.

Mr H.J. de Hele, SIDFA UNDP/UNIDO

Mr K.A. Khan Officer in Charge FI/73/008

Mr O. Khai, Assistant Secretary, Ministry of
Commerce, Industry and Co-operatives (partly attending)

Mr Sharma, CFC Adviser to the Ministry of Commerce
Industry and Co-operatives (partly attending)

Mr Akula Savu chaired the meeting. In his opening remarks, he pointed out that the tripartite meeting was meant to look into the project with the aim to find out its progress, the continued relevancy of its objectives and to establish its financial needs for the coming years, in particular for 1977.

The UNIDO adviser attached to the project, Mr K. Khan, gave a summary of the main achievements of the project in the field of training, preparation of project profiles, technical counselling, stimulation of the creation of industrial co-operatives. He was rather critical about the attitude of the Fiji Development Bank towards requests for loans, requests for small industrial enterprises. The Fiji Development Bank is taking into those matters a too prudent stand. Many viable loan applications are rejected. In his opinion the Fiji Development Bank should not only be a lender but act as a development bank, but lacks trained staff for that purpose.

Mr Gyan Singh outlined the status of Government actions on the proposals regarding policy strategy of industrial development made by the former project manager, Mr London:-

- Credit guarantee scheme is being looked into.
- Need for an Industrial Development Corporation. The Government sees no possibilities to realise this idea in the near future.
- Creation of infrastructure. Rs 1,270,000 is set aside for industrial land development and another Rs 895,000 for buildings and equipment in industrial estates. Final decisions on how to spend the money are still to be made.
- Procurement of raw materials through Government channels is already arranged for outlying islands.
- Marketing assistance is already provided for outlying islands and with respect to identification of foreign markets.
- Policies regarding foreign investment will be published within the next few days.
- The Industrial Review Committee is functioning very well at the moment. Decisions on establishment of industrial enterprises are taken within two months.
- Import licensing is not acceptable to the Government as a rule, but in certain instances it is being done.
- Industrial co-operative. The idea is agreed upon
- The question of backyard operations is under consideration.

The discussion during the bipartite review centred around three main topics: The objectives of the project, the role of the UN experts and the future needs of the project. Mr Gyan Singh emphasised also that some of the activities which the project is supposed to undertake were already started before the project was operational.

Project Objectives

It was generally felt that of the immediate objectives stated in the Project Document, objective (a) (to evolve a suitable policy and strategy for the development of small and medium industries in urban and rural areas) has been satisfactorily achieved.

Considerable discussion took place regarding objective (b). There were doubts voiced by Mr Abul Kalam Azad that sufficient headway was made regarding the activities meant for the rural areas. On the other hand, it was pointed out by Mr Gyan Singh that project identification and feasibility studies (15 project studies have been already), technical extensions services, facilitation of financing and marketing services are continuing activities which develop slowly due to internal and external problems. The main internal problem is the under staffing and lack of experience and professional background of the available staff of the Industrial Promotion Division of I.I. The external problems are related to the fact that the Industrial Promotion Division has not the authority to make all the necessary decisions in the process from project identification to establishment of the enterprise. This is a complex exercise in which many parties participate.

The need for an industrial economist to supplement the team of experts was expressed by Mr Gyan Singh. The project studies are often challenged by the Fiji Development Council on their economic merits.

The necessity of a technical workshop at this stage of the project was questioned by Mr De Mello and Mr Kusila Savu. In this respect Mr De Mello suggested that records of the technical advisory services given by the Industrial Promotion Division to private entrepreneurs should be studied to find the needs in the field of technical services in the industry. Mr Khan and Mr Sharma explained the functions of the technical common facility centres which are especially geared towards tooling and towards the training of industrial workers. Mr Kusila Savu questioned the training aspect as part of this project. Mr Mestra and Mr De Mello pointed out that in view of the financial constraints of the UNDP programme, a hard look should be taken at the immediate need for the workshop facilities. Mr De Mello mentioned the possibility of using short term consultants to assist specific institutions in solving on the spot their production problems. In this way a deeper insight in the technical services needs of the industries could be gained, whereupon at a later stage of the project, workshops can be established catering for those needs. The decision was taken the matter of the priority of the establishment of the workshops would be looked into by Mr Gyan Singh and Mr Kusila Savu.

With regard to establishing a network of rural industrial services, steps are being taken to implement this objective. The rural centres have been identified and Government equipment will be provided.

As to objective (c) training, Mr. D. felt that a more systematic approach towards the training of the staff of the Industrial Promotion Division is needed. In view of the insufficient professional background of some of the staff, on the job training, i.e. accompanying the UNIDO experts, alone, is not sufficient. The UNIDO experts should also conduct a more systematic training course. It is not possible in the near future to organize a field service as suggested by Mr. Madan. Military constraints do not allow expansion of the staff of the Industrial Promotion Division in this direction. As an interim solution, the co-operation with other Ministries who have staff in the field will be necessary. CPIC has offered training for 12 to 15 persons.

To start mobile training and servicing kits for rural areas, it was felt that the highest priority should be given to a lorry instead of using trucks. This will be a multi-purpose lorry instead of using trucks. This will be a multi-purpose lorry on which space will be reserved for equipment.

The Role of the U.N. Experts,

Mr. Mehta brought up the functions of the UN experts. In the project document it is not clearly stated whether the UN experts should only have an advisory role or also an executive function. In actual fact, the experts perform both functions and this can lead to mismanagement. In view of the reported Government's staffing problems, he suggested to consider use of experts under CPIC arrangements. Mr. Gyan Singh did not favour this idea, as in such a situation an expert would occupy a post for which no local staff could be recruited when a suitable candidate would become available. In fact, he wanted to continue with the present set up whereby the UN experts perform both advisory and executive functions.

On the matter of the project manager, Mr. Gyan Singh did not consider it necessary to have one in the future. Both Mr. Mitra and Mr. De Lisle suggested that one of the experts in the project, in addition to his specific professional task in the project, would be charged with the responsibility for the UNDP inputs. This person could then be given the additional title of chief Technical Adviser. This suggestion was accepted.

The needs of the Project in 1977

In this meeting the following needs were provisionally identified:

Experts	- Industrial Economist/PM	12m/m	
	- Rural Industries Expert	12m/m	
	- Industrial Engineer	12m/m	
		<hr/>	
	Total	36m/m	144,000

Equipment for mechanical workshops

in rural areas	120,000	
Mobile kits	<u>15,000</u>	135,000

In addition, the question arose if a local technician could be provided under Support Personnel for the supervision/maintenance of the mobile kits. Moreover, the services of associate experts will probably be necessary to operate the rural workshops. It was decided that Mr. Gyan Singh and Mr. Anulla Dava will prepare a proposal for UNDP inputs for 1977 and this will be discussed in a meeting on Thursday 26 August.

Finally, Mr Westra pointed out that there might be other possibilities for assistance. Mr Akula Savu told the meeting the use of UN Volunteers is not welcomed by the Fiji Government.

Continuation of Tripartite Review Meeting on 25 August 1976.

Meeting was attended again by Messrs A. Savu, Gyan Singh, Bal Ram, K.A. Khan, S. Westra, H.J. de Nie and Mr Tatakucoro. In addition, Messrs B. Counder and V.R. Navoka, both Assistant Secretaries of Ministry of Commerce, Industry and Co-operatives, attended this meeting.

Mr Savu presented a draft project revision in which the major changes pertaining to the institutional framework, long-term objectives, and the UNDP inputs for 1977 were included. The aim of the intended changes is to clarify the objectives of the project and the official position of the experts.

As to the institutional framework, the Government intends to use the project to improve consultation between a number of Ministries. A Management Board comprising representatives of the following Ministries/Department will be set up under the chairmanship of the Permanent Secretary of the Ministry of Commerce, Industry and Co-operatives.

- (a) Commerce, Industry and Co-operatives
- (b) Fijian Affairs and Rural Development
- (c) Finance
- (d) Town and Country Planning
- (e) Central Planning Office

This Board will review the progress of the project and guide and assist it in achieving its objectives. The Board will also advise the Government on suitable policy and strategy for the furtherance of the

development of small industries and also advise on the required administrative set up.

With regard to the objectives of the project, a shift in priorities towards a more equitable income distribution between urban and rural areas is intended, and secondly the wording of the immediate objectives will indicate the assisting role of the project with regard to the Support Services Programme of the Industrial Promotion Division of the Ministry of Commerce, Industry and Co-operatives.

The UNDP inputs as foreseen for 1977 by the Central Planning office will be as follows:-

<u>PERSONNEL</u>	<u>1977</u>	<u>COO</u>
	<u>no</u>	
<u>11. Experts</u>		
01. Rural Industries Expert	12	48,000
02. Industrial Engineer (Production)	9	36,000
03. Industrial Economist	12	48,000
<u>13. Administrative Support Personnel</u>		
Two secretaries and a local technician for the Mobile Servicing Kit		10,000
<u>40. Equipment</u>		
<u>42. Mechanical Workshop Equipment</u>		
- Savusavu		20,000
- Kadavu		10,000
Mobile Servicing Kit		15,000

50. <u>Miscellaneous</u>	5,000
<u>Grand total</u>	<u> </u>
	<u>5192,000</u>

It should be noted that the fulfillment of the post 11.02 Industrial Engineer is foreseen only after the first quarter of 1977. The present incumbent of this post can therefore be released after expiration of his contract. In view of his recent illness a one month extension beyond his present termination date of his contract, 12 September 1976, might be necessary (already extended through 31 December 1976).

Furthermore, it should be noted that in the Government computation the planning figure of 34,000 per month expert services is used, which does not differ appreciably the present prescribed actual cost figures plus official travel.

In view of the Government decision to defer the establishment of the Mechanical Workshop at Kelabo the implementation of post 11-05 (Foreman - Mechanical Workshop) prescribed in the project budget is now planned for 1978.

No implementation of posts 11-03 (Foreman - Welding Shop), 11-07 (Short Term Consultants) and 11-08 (Volunteers) is foreseen for 1977.

On the other hand in the text of the project revision, the Government intention to request for associate experts will be included.

No provision for fellowships is intended for 1977.

After mutual agreement on the foregoing, the meeting was closed by Mr. Sawu who indicated that the Government will prepare the project revision document which will include provisions for the following years as well.

ANNEX V
UNITED NATIONS DEVELOPMENT PROGRAMME

Report on

REVIEW

Project RIJ/73/208 - Rural and Urban Industrial Export Services

Days 25 and 26 January 1979

1. Background

In view of the fact that this project had not quite developed according to the recommendations made at the last tripartite review, particularly as far as project staffing is concerned this review was initiated by UNDP and UNIDO (executing Agency) with the main tasks of reviewing the projects:

- achievements (actual vis-a-vis planned)
- staffing situation
- budget 1979 (equipment)
- future development.

The Review was proposed to the Ministry of Foreign Affairs (letter No. 6565 of 29 December 1978) by the Regional Representative and subsequently agreed to by the Government, whereby the opportunity of the participation of a senior UNIDO officer whose visit to the Pacific had been planned before, presented itself and was seized.

2. Participation

The following participants representing the three parties were present at one or more of the Review activities.

Governments

Mr Gyan Singh, Permanent Secretary Ministry of Commerce & Industry
Mr A. Navoka, Assistant Secretary Ministry of Commerce and Industry
Mr Metani Vosa, Central Planning Office

Executing Agency, United Nations Industrial Development Organization (UNIDO)

Mr. Dino Sannas, Institutional Infrastructure Section, Vienna
Mr. Sergio Dello Strologo, Senior Industrial Development Field
Advisor (SIDA), UNIDO
Mr J.H. Winterling, Area Leader, Industrial Engineer
(Project Staff)
Mr G.D. Sharma, Industrial Engineer (Project staff)
Mr K. Pfeifferle, Associate Expert (Project Staff)

United Nations Development Programme (UNDP) :

Mr Insof Schuetz-Keller, Assistant Regional Representative (UNDP)

3. Programme

Thursday, 25 January 1979

Mornings: Informal Meeting (Messrs James, Dello Strologo, Schuetsz-Maeller)

Afternoons: 1) Visit to Kalabo Workshop (Messrs James, Schuetsz-Maeller, Project Staff)

2) Full working session with all participants in the Ministry for Commerce and Industry

Friday, 26 January 1979

Mornings: 1) Visit (flight) to Mambasa Workshop construction site (Messrs Kavona, James, Schuetsz-Maeller)

2) Lunch hosted by the Permanent Secretary for Commerce and Industry Mr. Gyan Singh.

Afternoons: 1) Working session (final meeting) in the Ministry for Commerce and Industry (all participants excluding project staff)

2) Reception hosted by the Senior Industrial Development Field Officer Mr. S. Dello Strologo.

4. Documentation

The following background material was made available to all participants (some also attached to this report):

.....

- * 1. UNDP Tripartite Review Mission Report
- * 2. Project Document
- * 3. Project Budget Revision "B"
- * 4. Project Progress Reports:
 - a. April - October 1977
 - b. October 1977 - June 1978
 - * c. June 1978 - January 1979
- * 5. Equipment Documentations:
 - * a. Summary equipment expenditures
 - b. List of equipment ordered 1978
 - * c. List of proposed equipment 1979
 - * d. Equipment status chart

5. General Project Review

- 5.1 During the working sessions the Permanent Secretary for Commerce and Industry, Mr Gyan Singh expressed his dissatisfaction over the project's development, which he felt had considerably missed momentum after a rather unfortunate start a few years ago, due to staff problems.
- 5.2 The Team Leader, Industrial Engineer Mr O. Kistnering briefly explained the situation as far as equipment purchases in 1978, and equipment requirements for 1979 are concerned. As indicated in his working paper, Equipment Summary, items which should be considered as absolutely essential for 1979 will amount to 13,505. In addition to this, purchasing of equipment for four workshops (Kilatu, Kankwa, Kikowalu, Kadava) in the amount of 36,035 was already recommended. A further amount of 50,255 which was "overcast" last year would have to be covered by the 1979 budget, which would make a total equipment component of 100,276 necessary.
- 5.3 The Team Leader also mentioned the problems resulting from lack of Government counterparts which is due to the competition of the well developed private sector in that field.
- 5.4 The staffing situation of the project was discussed, whereby the UNIDO representative Mr Jannas expressed his concern over a possible discontinuation of the team leader's services without replacement, which had been envisaged in the Government's tentative "INDA" Action Plan 1979". He stressed that the reduction of the project staff to two associate experts and one senior expert only, would not be desirable and could not be accepted by UNIDO for the following reasons:

These countries sponsoring experts under the associate expert scheme are doing this under the explicit condition that these young experts are being fully supervised by experienced senior experts, a condition UNIDO and other agencies are being asked to guarantee. Furthermore, Mr Jannas felt that the large equipment component as provided in this project would in fact require a proper staffing back-up.

The Government's representative Mr Jannas stated that he personally was also in favour of the continuation of the team leader's service. He emphasized however that he was not in a position to speak authoritatively on behalf of the Government and that he could only recommend a course of action.

- 5.5. When reviewing the project's history as far as staffing is concerned Mr Jannas expressed concern that the recommendations of the last tripartite review have not been carried out as planned. At the request of the Government the post of a second Industrial expert (II-1) has not been filled and the Industrial economist post has been filled with a second Industrial engineer. While the only agreed objective on the industrial engineering side was noted, the UNIDO representative stressed, that the economic/marketing component which was neglected so far, does in fact present a vital part of the project concept. The Government representatives although agreeing that economic/financial/marketing advice to be given to small entrepreneurs was of high priority, felt that this aspect of the project has so far been adequately covered by activities of the Ministry's staff.

5.6 Mr Singh felt that, although additional project staff (Industrial Economist, or Rural Industrial Expert) would certainly be beneficial to the project, with the total 1977 project budget as tentatively sanctioned by the Planning Office, (Rs. 1.00), a third expert could not be afforded, since it would even possibly prove less to fully satisfy the equipment needs as detailed by the project area leader. The UNDP representative Mr Thomas thought it was rather difficult for his agency to do proper long-term project planning and execution, if project budgets previously agreed to by all three parties concerned (i.e. 229,000 for 1979) are being changed annually on a somewhat ad hoc basis. The same would refer to project staff requirements (thus referring to the Government's recent decision not to fill the post of a Rural Industrial Expert, only after candidates for the post had already been selected.) He described the staff recruitment procedure as being rather complicated and lengthy which required long-term planning provisions.

5.7 The UNDP representative confirmed that the latest 1978 UNDP Programme expenditure estimates turned out to be lower than expected, thus providing a higher planning figure for 1979 which should render it possible to cover the minimum project requirements for the current year. They were considered to be as follows:-

11-03	Industrial Engineer I/II	54,000
11-04	Industrial Engineer I/II	54,000
13	Support pers.	11,500
15	Travel	2,000
49	Equipment	30,276
59	Miscellaneous	2,000
99	Total	1,03,776

6. Achievement of Project Objectives

Activities and outputs were thoroughly reviewed with regard to the project's objectives, as laid down in the project document

6.1 Long-term objectives:

- a. To assist in achieving more equitable distribution of the benefits of industrial development between urban and rural areas:

Objective achieved

- b. To encourage increasing participation of the indigenous population in industrial activities:

While involvement of the indigenous population in industrial activities is still rather small (approximately 15% as far as assistance given by the project is concerned) there are most promising signs of an increasing participation, which is documented in the project's assistance given lately to the following (Sijia (or Sijian/Indian) small scale enterprises mainly in the form of technical advice and selection of equipment and materials, as also advice regarding development bank loan applications and marketing considerations:

- Ice cream production, Kila 0
- Saw furniture plant, Kila 0
- Steel fabrication, Kila 0
- Rubber mill plant, Kila 0

- Furniture joinery (at Likiep, Rikivatu)
- Concrete block making, Likiep
- Shell making, Likiep
- Kipona pounding; (four locations), Viti Levu
- Charcoal making, Likiep

- c. To assist in creating new employment opportunities for the new entrants into the labour force every year:

Objective achieved

- d. To work towards realising the growth target of the industrial development sector during the period up to 1980.

Objective being met.

6.2 Immediate Objectives

- (a) to assist in the operation of a support services Programme, including project identification and feasibility, a technical extension service, facilitation of financing and marketing services;

Objective being met satisfactorily, whereby facilitation of financing and marketing services is being carried out by the Ministry's staff.

- (b) to assist in setting up a network of rural industrial services through location of service workshops in a number of rural centres;

Objective being met satisfactorily

- (c) to assist in the setting up and operation of mobile training and servicing kits for the outer islands and other isolated areas;

One Mobile Unit has been established, others are to follow; outer islands still to be serviced.

- (d) to training a cadre of technical officials able to operate independently the support services Programme;

Being met satisfactorily at the Likiep workshop since the arrival of the first associate expert. A medical associate expert is expected to arrive in mid 1979 who would undertake the work at the Rikivatu workshop (workshop construction and final programme satisfactorily). It was found desirable to incorporate a follow-up training component into the project for 1980.

- (e) to advise on the need for support service facilities for existing and new industries in rural areas;

Objective being met.

7. Conclusions and Recommendations

1. It was recommended to request the Government to consider an extension of the team leader's contract.
2. It was recommended to accept the candidature of the second associate expert for the laboratory workshop and to expedite his recruitment.
3. It was recommended to allocate a budgetary component for equipment purchases in 1960, as suggested by the team leader, and possible additional budgetary allocations if required by the Government for new centers to be developed.
4. It was recommended to phase-out the present project in mid 1960 as envisaged in the project document, further UNDP assistance would however be required after that date.
5. The nature of such assistance would be determined at a later date. However, it was recommended to look into the possibility of providing workshop managers possibly of Fijian nationality under sub-contract as one possible aspect of future assistance.

THE ROAD FOR CORPORATION

The need for setting up an Industrial Development Corporation can be understood and appreciated in full only in the perspective of national aspirations in the sphere of industrial development. These have been set out and explained at length in the preceding parts of this memorandum. The vast scale of the canvas on which this programme is now conceived makes it compellingly necessary to create a new institution which is relieved from the iron-clad rules of a Government set-up and which has a business orientation in spite of a certain promotive slant. While there are certain operations which need to be carried out with due regard to economic viability and profitability it will be well-nigh impossible to entrust these to individual entrepreneurs or to private undertakings without impairing the true nature and spirit of the programme. On the other hand, some of the other operations are promotive in character; yet these cannot be undertaken by the Ministry of Commerce, Industry and Co-operatives or its Industrial Promotion Division. There is need for a certain equilibrium and synthesis. The operations have to be carried out with due regard to profitability without allowing these to become purely trading transactions aimed at earning profits. There is need therefore, for an effective and virile organisation which has all the strength, capability and motivation of a commercial organisation combined with a drive for promotion and development.

The fields and spheres of activity of the Corporation suggest themselves. These may be stated in broad, but by no means exclusive terms, as follows:-

1. Creation of infrastructure in the form of industrial estates;
2. Procurement and supply of machinery to small-scale industries on a hire purchase basis;
3. Procurement and supply of raw materials and ancillary items to industry;
4. Marketing of Industrial products;
5. Direct equity participation in ventures;
6. Establishment of laboratories and tool rooms and prototype centres.

APPENDIX VII

EXTRACTS OF SOME OF THE MORE INTERESTING RECORDS ON VARIOUS PROJECTS
IMPLEMENTATION - ACTIVITIES

- (1) The first of these are the activities reported from July to December, 1975:-

"(a) Project Activities

- (1) Familiarisation with the country by Project Manager and Experts, including a countryside tour and contact with Ministers, Government officials, bankers, leaders of community in rural and urban areas and prospective entrepreneurs and industrialists;
- (2) Analysis of socio-economic problems of the country and of the causes of slow pace of industrialisation;
- (3) Formal submissions by Project Manager regarding the policy and strategy to be adopted by Government for industrialisation of Fiji;
- (4) Requisition for equipment for two common facility workshops and one rural service centre forwarded;
- (5) Identification of product lines and preparation of project profiles;
- (6) Survey for auxiliary developments;

- (7) Organisation of a group study tour for six entrepreneurs;
- (8) Identification of prospective entrepreneurs;
- (9) Preparation of ground work for basic training facilities;
- (10) Exploring possibilities and prospects of turn-key projects and technology transfer;
- (11) Contact with a pioneer consultancy firm for visiting Fiji and for giving advice on important industries;
- (12) Ground work for formation of industrial co-operative societies;
- (13) Identification of potential growth centres and preparation for developing them;
- (14) Liaison with Fiji Development Bank and Commercial banks;
- (15) Preparation of a perspective plan for development of industrial estates in the country: 1976 - 80" (Appendix IX)

- (2) The activities of the project as reported in the July - December, 1976 report are as follows:-

"(a) Project activities

- (1) Follow up of proposals regarding policy and strategy of industrial development;
- (2) Follow up of the Industrial projects already identified and tied up with the prospective entrepreneurs;
- (3) Identification of product lines and preparation of project profiles;
- (4) Assistance and advice rendered to the prospective entrepreneurs;
- (5) Attended to the preparation of papers and latest account of the work of project on the eve of Tripartite Review held on 23 - 26 August, 1976;
- (6) Salient points discussed and decisions taken in the tripartite review meeting held on 23 - 26 August 1976 - revised work plan prepared;
- (7) Documentation of Information on the sources of supply of machinery/equipment etc completed. Index carding system introduced for the benefit of entrepreneurs."

The major problems cited in this report were as follows:-

"(c) Major Problems

- (1) Absence of executive staff at field level continued to be one of the major constraints in the follow up of various industrial projects which are in the pipeline and which were conceived and tied up with the entrepreneurs with great diligence and care during the period under review.
- (2) Non-availability of industrial area in a major island of Vanua Levu (Lacasa) causing a set back to as many as nearly dozen industrial projects some of whom could have been on the ground by now if the industrial land was given to them.
- (3) Putting off the establishment of common facility centres, a major activity of the project, due to substantial cuts in UNF budget."

The Tripartite review meeting indicated in the project activities above was held on 23-26 August 1976. The discussions during the Tripartite Review Meeting centred around three main topics:-

- (a) The objectives of the project
- (b) The role of the U.N. experts
- (c) The future needs of the project.

A report of this Tripartite Review is attached in appendix IV .

The following is the extract from the July - December, 1979 semi-annual reports:-

"(a) Account of Project Activities

- (1) The Central Industrial Development Workshop although limited by lack of support personnel and equipment has made progress toward its objectives. It has completed more prototype equipment for the Sigatoka Ceramic Project, improved the charcoal retort and stoves and has completed an order of 75 stoves and sawdust burners. An extensive experiment with prototype apparatus for producing fuel alcohol has been completed with promising results if applied to rural areas. Special dies, fixtures and services to local industries have been finished with mutual satisfaction. It is becoming clearer that the shop is an industrial development facility and not a service shop to industry except in special cases where services are too costly or not readily available in the private sector. It is unfortunate that the release of money from the IPF for equipment for all Workshops was in the order of US\$35,000 for 1977, US\$50,000 for 1978 and US\$40,000 in late 1979. Had the order been reversed as originally planned much better use of highly qualified and experienced engineers and toolmakers on the UNIDO team would have been possible.

(2) There was a very promising period in mid 1977 when a Project Management Board was meeting regularly in the Conference room of the Ministry of Commerce and Industry to solve problems of the project involving other branches of Government. The Board was made up of ranking officers of Ministries concerned with rural Industrial Development and came into being as a result of a tripartite review of the project in August of 1976. The arrangement seemed ideal to accomplish the Immediate Objectives of the project by following the work Plan outlined in the Project Document. The members of the Board would see to the recruitment of a National Staff and the buildings necessary for the network of rural workshops while the UNIDO Team would take care of technical matters, training and purchase of equipment. However, by early 1978 the meetings were discontinued because of waning attendance and representation. This was a serious loss of liaison between the UNIDO Team who planned activities and those who could put them into action. Equipment lists could be made, buildings planned and job descriptions written but unless money was made available at the proper time, buildings completed on time and counterparts recruited no planning accomplishes little.

(3) Progress of the Project in Kerala

The Project is somewhat behind the schedule of the work Plan. However, if counterpart staff can be recruited immediately and the Workshop Centres at Kozhikode and Malappuram opened, some training and extension work could be done. Possibly Kollam could be opened if the building can be completed. No associate reports are on hand for training personnel at these workshops and the equipment is in

storage at Kilatu. If a Principal Engineer could be appointed quickly he would have more time to take over the work now done by the W.H.O. team."

APPENDIX VIII

Bibliography Of Documents Prepared During Project

1. Submissions to Government on Policy and Strategy of Industrial Development - A total strategy and policy of industrialisation in Fiji by H.H. Zindon.
2. Industries to be considered for joint ventures.
Note to form a case for discussion with the Australian team primarily, prepared by S.D. Sharma.
3. Proposal to establish a rural development and small business training Institute in Vuni, Fiji prepared by S.D. Sharma.
4. "Submissions on rural Industrial Development Schemes" (1979 - 1981) to form a case for discussions in Aid Programmes and development Sub-Committee paper prepared by S.D. Sharma
5. "Intensive Industrial Development Campaign" - paper written by S.D. Sharma.
6. "Technical Aspects of Industrial" - paper presented at ADB-UNEP EDB Program on Development Banking for the South Pacific by S.D. Sharma.
7. Paper presented to Economic Advisory Council on 23/11/77 on request from Government of Fiji on 'Utilisation of the Coconut for Industrial Use' - prepared by S.D. Sharma.

8. Paper written for discussions at business and Industrial Development Committee, Government of Fiji on 'Concept of Backyard Industries listing and adoptability' - by G.D. Sharma.

9. A note prepared for use in the Government - incorporating activities of U.N. Rural and Urban Industrial Support Services Unit - 'Entrepreneurial Assistance through the Industrial Promotion Division' - by G.D. Sharma.

- 10(i) "Review of Development Plan VIII - Rural and Urban Industrial Support Services Project"

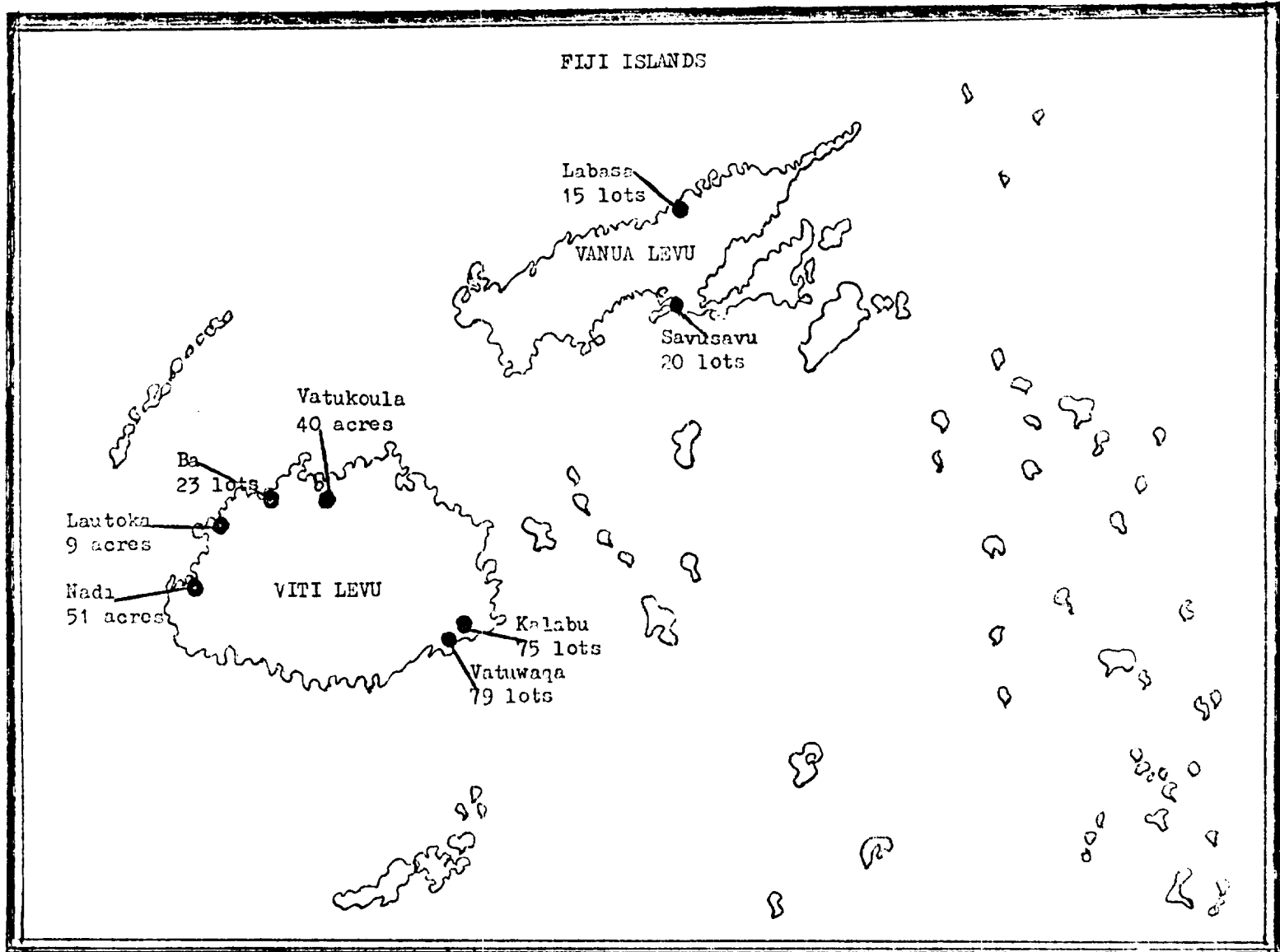
- (ii) "Promotion and Development of Rural Industries" - prepared by V.R. Mvoka (Project counterpart)

11. Proposal of 'Raho Cooperative Association, Rotuma for establishing a Fruit Processing factory - by G.D. Sharma.

12. Fuel alcohol produced from Cassava as a Substitute for Petrol and Kerosene, Technical report on experiments carried out at Central Industrial Development Workshop at Kilatu - prepared by G.D. Sharma.

APPENDIX IX

MAP OF INDUSTRIAL ESTATES AND SUB-DIVISIONS



- 85 -

THE FUTURE LOOKS BRIGHT

The once problem-ridden incense stick factory at Narewa, Nadi is now flourishing.

It appears to have overcome the market problems which plagued its progress in the first two years of operation in 1976 and 1977.

"In fact, we are doing quiet well now compared to the early years," said supervisor Mrs Raijeli Tuidraki, 51, one of the factory pioneers.

The Fijian business venture, run by the Nadi Industrial Co-operative Society, involving 92 villagers in Nadi is, however, still faced with big overhead costs that it is trying to cut down.

A machine has arrived which will take over the job of several women now responsible for slicing up bamboo tracks into thin sticks.

The bamboo slicing machine is a cost-saving measure," Mrs Tuidraki said.

At the moment women in villages are told to make as many as they can at a rate of \$3 for 1000 sticks.

"In a week a woman could average \$30," Mrs Tuidraki said.

"It has become an ideal alternative source of income for the women in the Fijian villages in Nadi because it's easy money," she said.

The society, which is renting the building housing the factory from the Nadi Youth Community Resource Centre, is to build a new factory of its own on a new site near Narewa village.

"Again we hope to cut costs," she added.

Meanwhile, the work continues in the factory.

Bamboo is brought from Sigatoka, sewn up and boiled in 44-gallon drums to harden it. Two men do the work. They are two of three men in the entire workforce. The rest are women.

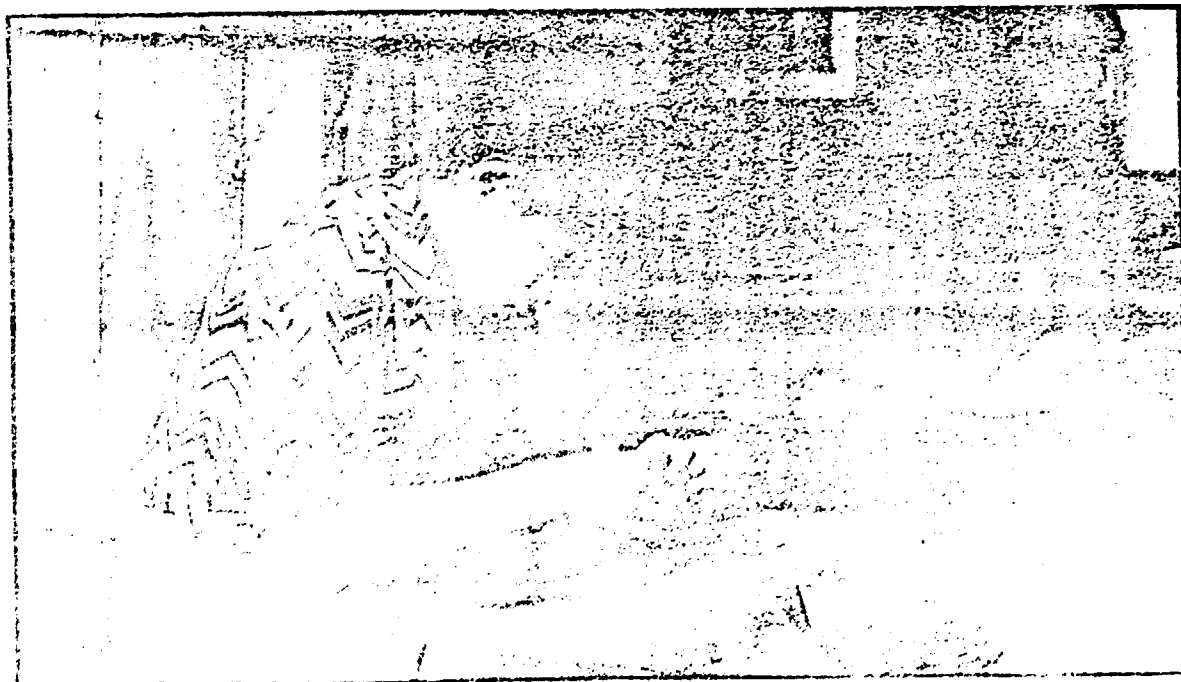
The other man is the manager Mr Kalova Nabulagi, 48, the man behind the rejuvenated state of the factory.

The sticks are then passed on to women whose job is to roll the black sticky material around the sticks. It is a mixture of black and brown blending powder.

Mrs Tuidraki said 120 kilograms of the mixture could fetch 1200 incense sticks.

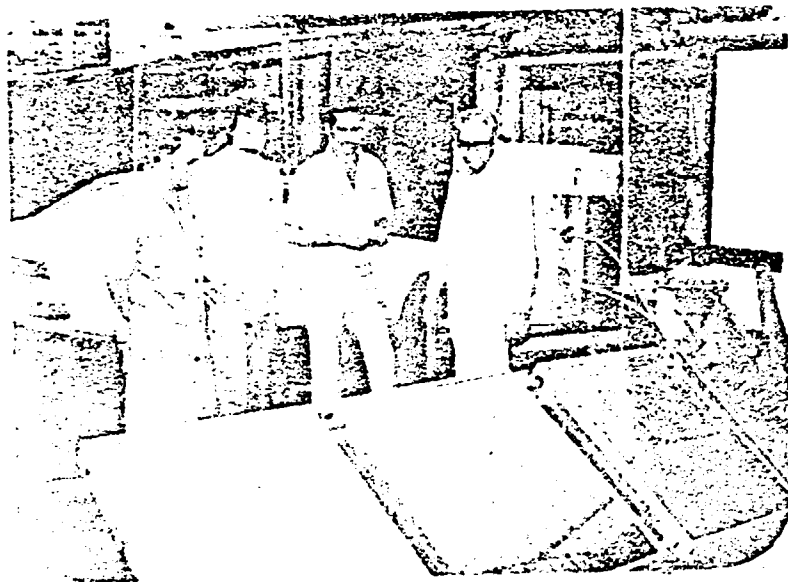
They are dried up for one or two days depending on the temperature then dipped into two types of chemicals for five minutes before they are wrapped up for 24 hours before they are put in packets.

Incense sticks are used by Hindus for religious ceremonies.



THE NADI INDUSTRIAL CO-OPERATIVE SOCIETY HAS RECEIVED A BAMBPO SLICING MACHINE FROM THE NADI YOUTH COMMUNITY RESOURCE CENTRE.

JOLLY HARDWARE & BUILDING CO LTD



MR. G.D. Sharma & Mr P. Kurt of Ministry of Commerce and Industries along with Mr Jack Akbar and Abdul Majid of J.H.B. Co. Ltd watching the first successful prototype model installed.

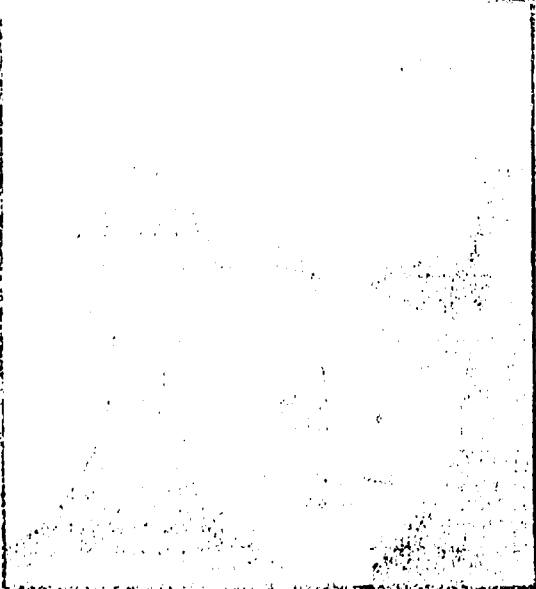
Totally local manufactured J.H.B. Solar Water Heater is offered 40% cheaper Works for fully day water requirement in two hours sunshine. Extra booster arrangement for islands having continuous rain.

Inquiries solicited:

P.O. Box 5150
Naiyoga
D.P.K.

P.O. Box 51
LAUTOKA

PM WISHES SUCCESS TO NEW VENTURE



I send my warm greetings on the occasion of the opening of the central mechanical workshop at the Kalabo Industrial Sub-division.

It is pleasing to see that one of Government's industrial objectives under its Development Plan VII Programme comes into fruition -- that of taking the necessary industrial expertise and appropriate technology to the rural areas. It is hoped that before too long Kalabo becomes another important growth centre within the Suva-Nausori peri-urban area.

The central mechanical workshop is the first of its kind to be established in Fiji. It will provide the

necessary common service facilities for existing and new industries. With its mobile workshop unit it will also provide servicing facilities to the more remote areas.

The Government is grateful to the UNDP for its assistance in the project. Without its technical know-how and financial support, the project would not have materialised. My appreciation also goes to the Ministry of Commerce and Industry for having worked so hard to achieve this objective.

I trust that the workshop will be of real benefit to the people of Kalabo and its neighbourhood and I wish the venture every success.

Kalabo a step towards rural development



By
the Minister for Commerce and
Industry,
Mr MOHAMMED RAMZAN

I am very grateful to the Fiji Times for giving me this opportunity to express a few thoughts on the eve of the opening of the Common Facility Central Workshop and the Mobile Workshop Unit at Kalabo Industrial Sub-division.

The establishment of the workshops have been made possible by the technical expertise which has been available through the United Nations Industrial Development Organisation team of expert personnel, assigned with the Industrial Promotion Unit of the Ministry of Commerce and Industry. Most of the tools and equipment for these workshops have also been provided by United Nations Industrial Development Organisation, to which we are all very grateful.

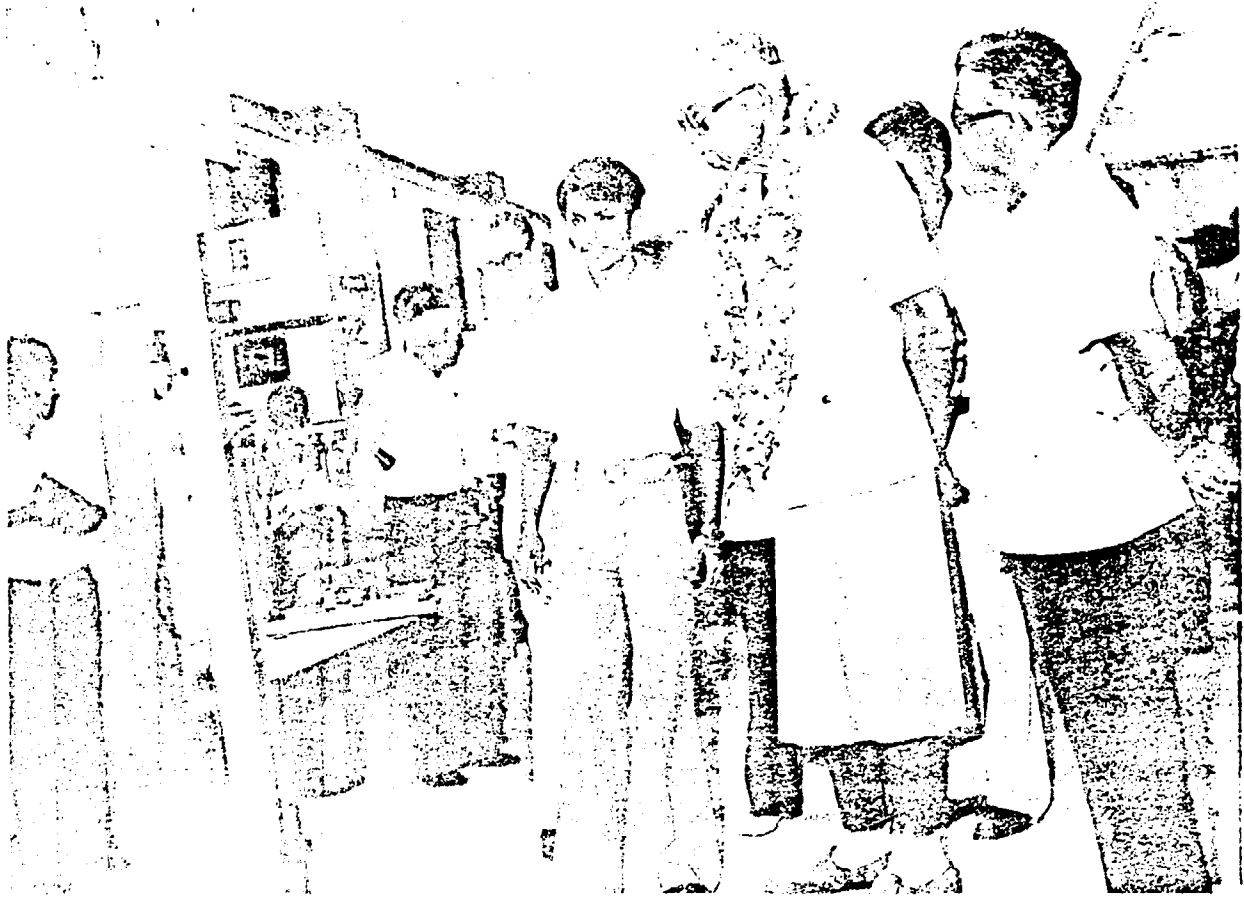
The existing industrialists within the area would also have the opportunity to utilise the services of

the centres for the repair of their tools and machinery parts, as well as the manufacture of proto-types of machinery and equipment.

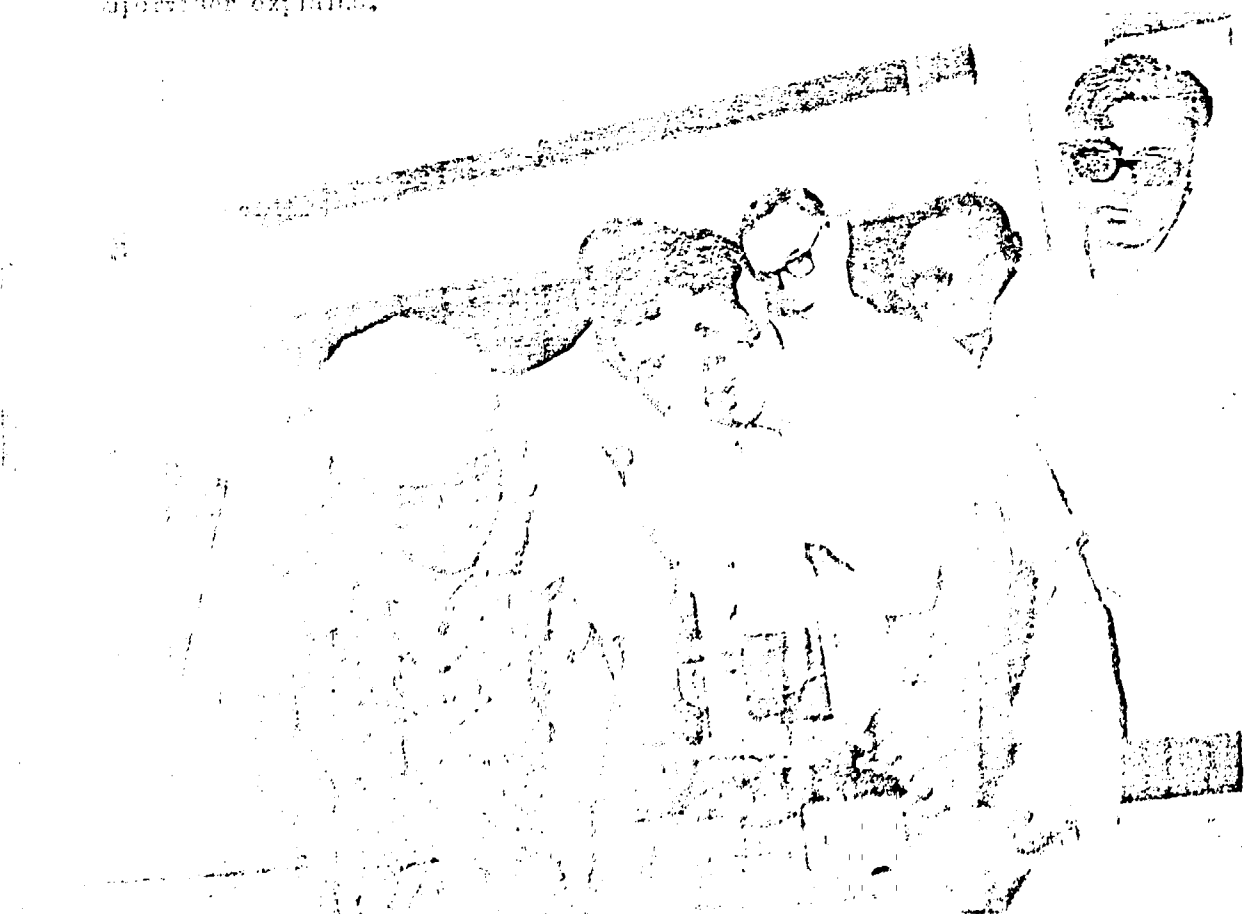
The establishment of such rural service institutions would definitely be a positive step towards providing for the development of industries for the rural people. These service centres would be used for the training of aspiring small entrepreneurs who intend to set up industries and for the updating of skills for those who may require improved methods and techniques of production.

The common facility central workshop and the mobile workshop unit at Kalabo Industrial Sub-division would provide back-up facilities to the various rural service centres.

I hope that all these efforts on the part of the Government would generate enough interest and enthusiasm among our rural community so that they would start small scale industries in their own environment and thus achieving the Government's objective of promoting entrepreneurship amongst our people.

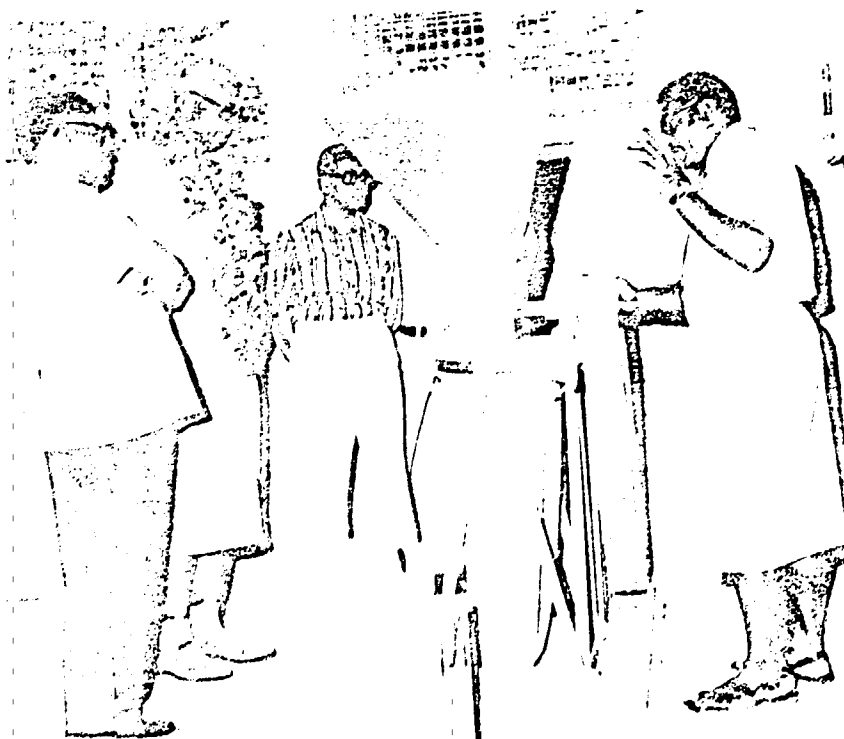


Prime Minister tours Central Industrial Development Workshop after its opening accompanied by Hon. Minister and UNCTAD Expert Mr Kimberling. Mr Peter Spornier explains.





Opening of Mobile Workshop Unit by Rt. Hon. The Prime Minister of Fiji.



Prime Minister accompanied by Hon. Minister and UNIDO Expert, Mr Sharma visits a small scale Yaqona Pounding factory. Mr Navoka, the Project Counterpart explains.



Prime Minister visits small scale factories accompanied by Hon. Minister of Commerce and Industry and UNDP Regional Representative.



SUN FIJI

FRIDAY, OCTOBER 26, 1979

12c

WEATHER: FINE

SUN COMMENT

RURAL dwellers, particularly those in outlying islands, almost always end up being the hardest hit when it comes to any price increases and the like from urban centres.

Just about all their consumer goods have freight charges loaded on to costs. Thus the Government is always looking at means

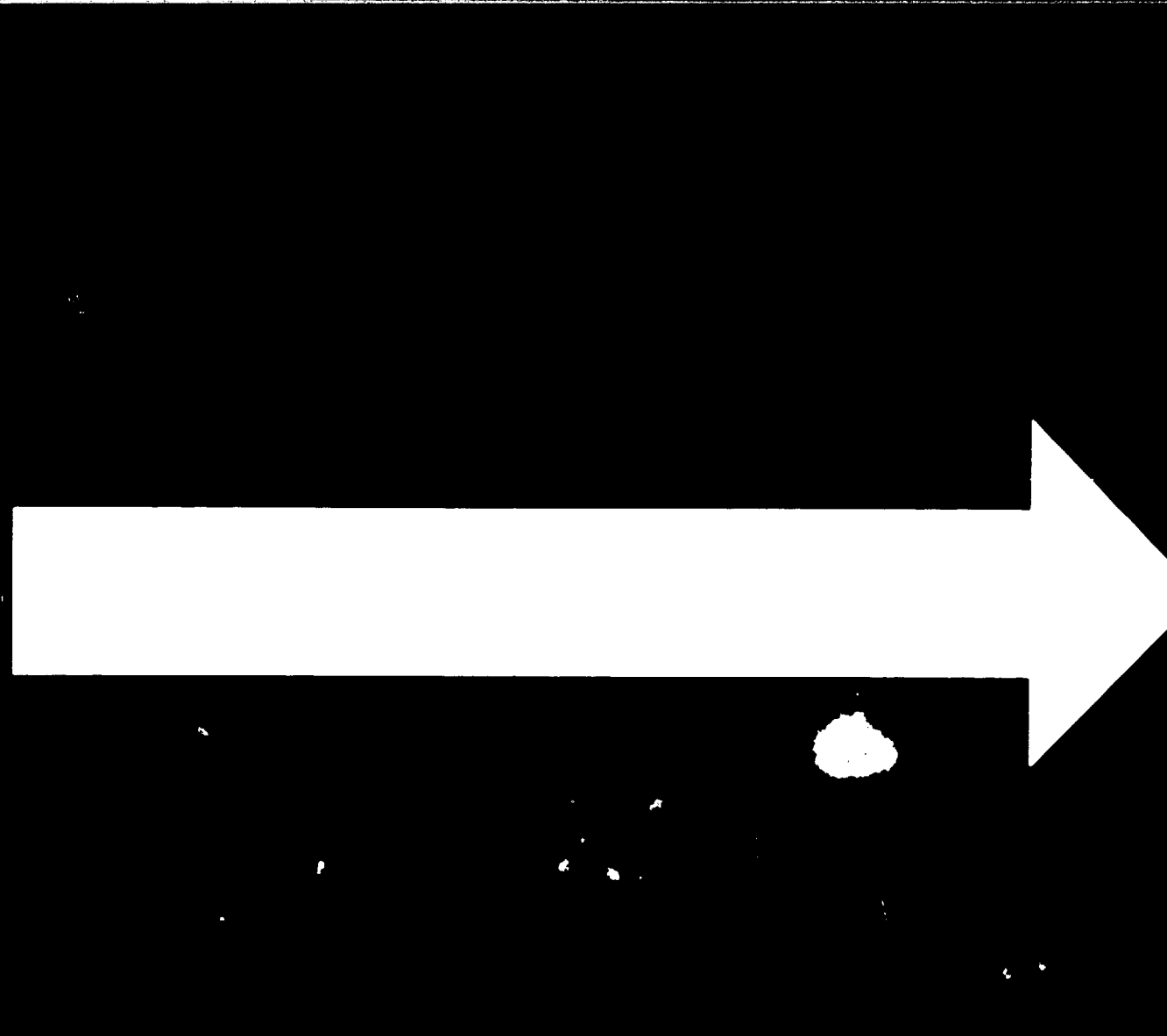
of easing their burden. Introduction of specially produced charcoal burners for use mainly in rural areas is a step in that direction.

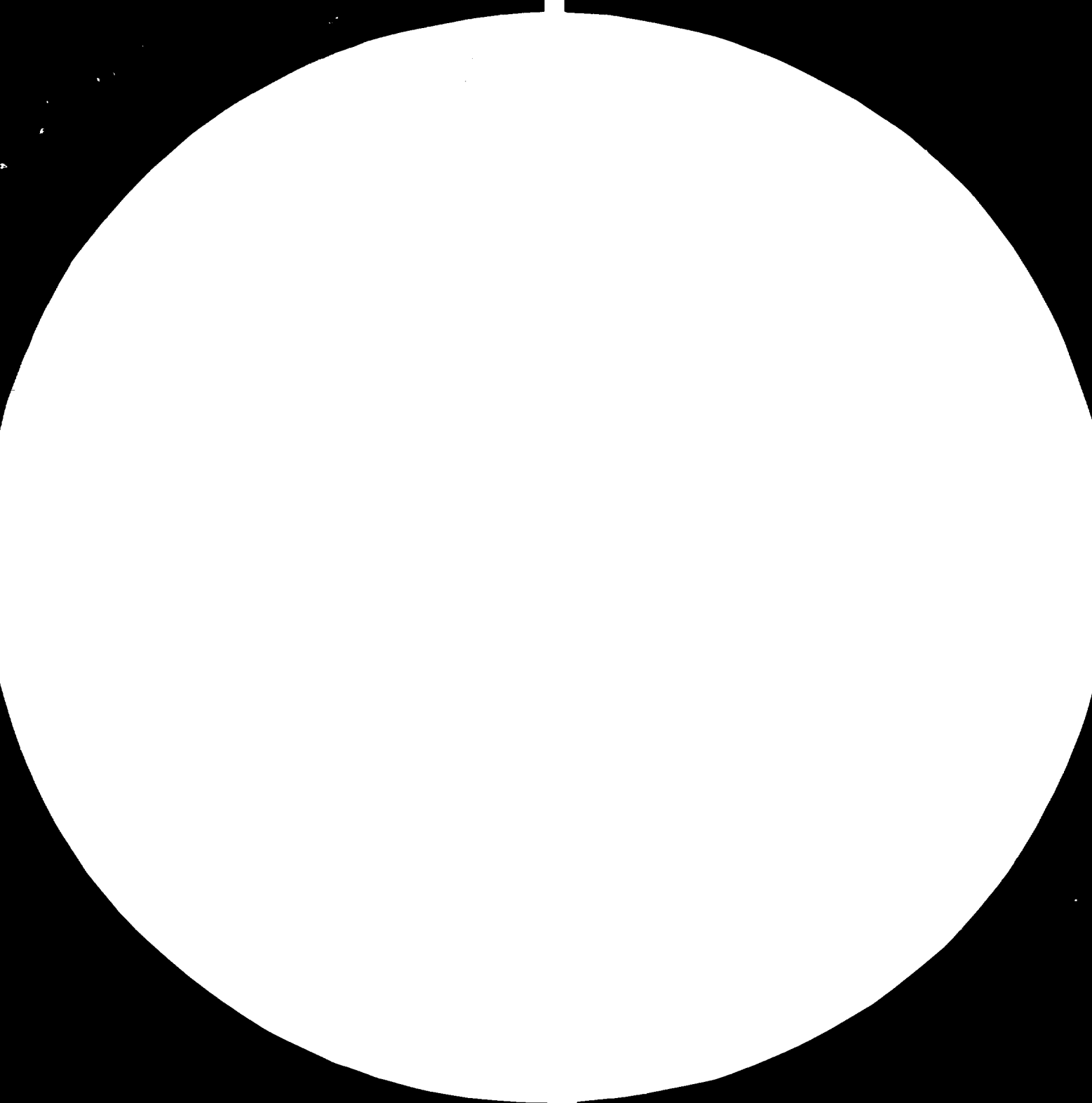
Firewood is readily available in those areas, providing a cheap source of fuel. And less use of imported kerosene will contribute towards foreign exchange savings.



THE Minister for Commerce and Industry, Mr Mohammed Ramzan [right] points out charcoal burning stoves which will be introduced in rural areas to cut down kerosene consumption. Mr Ramzan said the stoves produced at the Government's Central Industrial Development Workshop at Nadera would help remove heavy reliance in rural areas on oil fired stoves. The workshop is a joint Fiji Government and United Nations sponsored project.

APPENDIX XII (a)



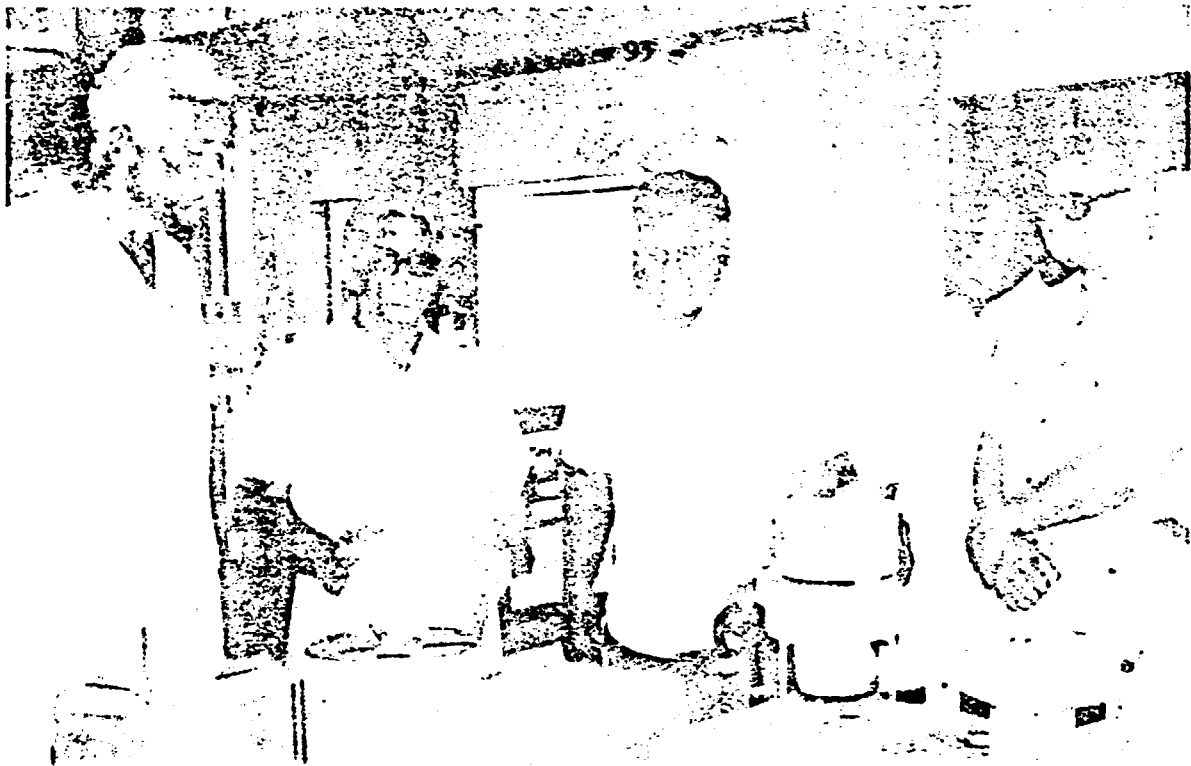




4.5
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6.3
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8.0
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A



THE Prime Minister, Ratu Sir Kamisese Mara, inspects the latest in fuel saving devices, sawdust and charcoal fired stoves, with the Minister for Commerce and Industry, Mr Mohammed Ramzan, the Minister for Education; Mr Semesa Sikivou, Minister for Works and Communications, Mr Livai Nasilivata and the Minister for Labour, Industrial Relation and Immigration, Ratu David Toganivalu.

CHEAP ANSWER TO FIRE FUEL CONSERVATION

BRIQUETTES — bricks of compressed coal dust combined with binding material — could become Fiji's answer to fuel conservation.

This follows a Ministry of Commerce and Industry introduction of briquettes which would recycle various wastes into potential fuels.

The briquettes would utilise such wastes as wood chips, rice husk, coconut fibre, straw and paper.

Sawdust and any cellulose waste could be compressed without binders to make it one of the cheapest forms of fuel available.

Experiments conducted at the ministry's Central Industrial Development workshop in Kalabu, 11km from Suva, have been described as "very successful."

Cabinet Ministers led by the Prime Minister, Ratu Sir Kamisese Mara, recently toured the workshop and were impressed with the experiments conducted there.

One experiment saw sawdust being compressed into

the cylindrical stove and fired, thus providing enough heat to cook meals for an average-sized family.

Among other items inspected was a charcoal retort which according to a Government spokesman would benefit people in villages.

He said rural youth clubs could organise, with the help of the machine, produce cheaper charcoal for use in the homes.

He said the charcoal retort machine could also become a commercial enterprise for these youth clubs or for co-operative societies in the rural areas.

The Ministers also inspected an experimental plant for the preparation of ethanol which the workshop has been working on for sometime.

The plant, after the second stage of distillation, was able to obtain 81 per cent alcohol which when burned produced an almost colourless flame.

The spokesman said the

alcohol was produced through burning cassava and that it could be used for such

purposes as running outboard motors and for burning night lamps.

APPENDIX XII (b)

ESTABLISHMENT OF PROJECTS • FIDUCIARY FUNDS
(OPERATIONAL FUNDS)

	<u>FORMER REVISED U.S. SHIP</u>			<u>FOR FIDUCIARY FUNDS</u>		
	Cost of Ship	Net by	Date	Aid Cost	Net by	Date
(1) <u>Ships in Progress:-</u>						
Arara (1930)	US\$10,000	US\$1	Purchased	9,000	Youth Council	1931
Arara (1930)	US\$10,000	US\$1	Purchased	20,000	US\$1	1931
Arara (1930)	US\$15,500	US\$2	Purchased	50,000	US\$1	March 1931
Arara (1930)	US\$10,000	US\$2	Ordered	15,000	US\$1	1930
Arara (1930)	US\$10,000	US\$1	Purchased	15,000	US\$1	1931
Arara (1931)	US\$10,000	US\$1	Purchased	15,000	Aid	1931
(2) <u>Work to be started:-</u>						
Kadavu (Vanisea) (1931)	US\$15,000	US\$2	1931	15,000	Aid	1931
(3) <u>Proposals:-</u>						
Segeja (1931)	US\$15,000	Aid	1931	15,000	Aid	1931
Dekeoti (1931)	US\$15,000	Aid	1931	15,000	Aid	1931
Vileka (1931)	US\$15,000	Aid	1931	15,000	Aid	1931
Vainikoro (1931)	US\$15,000	Aid	1931	15,000	Aid	1931
Keiyauli (1932)	US\$15,000	Aid	1932	15,000	Aid	1932
Wiyovo (1932)	US\$15,000	Aid	1932	15,000	Aid	1932
Wiyovo (1932)	US\$15,000	Aid	1932	15,000	Aid	1932
Wiyovo (1932)	US\$15,000	Aid	1932	15,000	Aid	1932
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
Wiyovo (1933)	US\$15,000	Aid	1933	15,000	Aid	1933
TOTALS:-	US\$250,000			US\$250,000		

(Note: 'D.C.' stand for Local Development Cost)
(to be met locally - normal practice)

Year	No.	Amount	Local Development Cost				Local Funds	
			Estimate	Actual	Balance	No. of	(to be met locally - normal practice)	etc. required
-	1001	1000	1000	-	-	-	(10,000) D.C.	-
1,000	11	1001	10,000	25,000	15,000	3	(10,000) D.C. and 15,000 D.C.	10,000
2,000	11	1001	-	-	-	-	(20,000) D.C. and 20,000 D.C. (D.C. 13,500)	30,000
30,000	11	1001	40,000	25,000	15,000	3	(10,000) D.C. and (20,000) D.C. + (15,000) D.C.	35,000
40,000	11	1001	40,000	25,000	15,000	3	(25,000) D.C. and 20,000 D.C.	35,000
50,000	11	1001	40,000	25,000	15,000	3	(20,000) D.C. and 30,000 D.C.	100,000
60,000	11	1001	40,000	25,000	15,000	3	(15,000) D.C. and 20,000 D.C.	100,000
70,000	11	1001	40,000	25,000	15,000	3	20,000 D.C.	115,000
80,000	11	1001	40,000	25,000	15,000	3	20,000 D.C.	115,000
90,000	11	1001	40,000	25,000	15,000	3	20,000 D.C.	115,000
1,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
2,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
3,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
4,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
5,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
6,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
7,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
8,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
9,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
10,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
11,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
12,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
13,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
14,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
15,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
16,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
17,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
18,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
19,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000
20,000	11	1002	10,000	20,000	10,000	3	20,000 D.C.	115,000

APPENDIX XIV

LIST OF INDIVIDUALS SELECTED DURING THE PROJECT PERIOD

<u>POST NO.</u>	<u>POST DESCRIPTION</u>	<u>NAME AND NATIONALITY</u>	<u>SENT DURING PROJECT PERIOD</u>	<u>REPORT DURING PERIOD</u>	<u>ACTUAL DATE OF DEPARTURE</u>
11.01	Project Manager	(i) Mr Abid Hussain (India)	July 1974	July 1974	February 1975
		(ii) Mr H.N. Tandon (India)	Jan. 1975	July 1975	May 1976
11.02	Rural Industries Expert	Mr K.A. Khan (India)	Jan. 1975	Sept. 1975	July 1977
11.03	Industrial Engineer	Mr P. Jayachandra (India)	Jan. 1975	Sept. 1975	Jan. 1977
01	"	Mr D.H. Kimberling (U.S.A.)	Jan. 1975	April 1977	
02	"	Mr G.D. Sharma (India)		Oct. 1977	
03		Cancelled	July, 1978		
001	Associate Ind. Engineer	Mr Kurt Pfefferle (West German)	Oct. 1977	Dec. 1978	
002	"	Sirp J. de Boer (Netherlands)	Aug. 1979	Aug. 1979	



