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TECHNICAL REPORT OF MR. J.M. SAIT — Consultant

INDUSTRIAL ECONOMIST

Backstop Off. Ms S. Brodo
IPCT/II/IFAP

IDENFITICATION, FORMULATION AND PREPARATION OF INVESTMENT PROFILES FOR THE FUJIAN PROVINCE PEOPLE'S REPUBLIC OF CHINA

AUGUST 1992

UNITED NATIONA INDUSTRIAL DEVELOPMENT ORGANIZATION

VIENNA

CONTENTS

EXECUTIVE SUMMARY

Mission Period : May 1992 to July 1992.

Purpose of the Mission:

The mission was fielded for the purpose of identification and formulation of industrial development projects in Fujian Province seeking foreign co-operation.

Results of the Mission:

In the course of field work between 19 May and 8 July 1992 forty investment projects were selected out of the many proposals put forward by the local investors, all of which were from the public sector. The selection was made on the basis of

(a) Need for technology transfer
(b) Availability of essential data
(c) Financial viability and
(d) National / Provincial priorities

The selected projects comprised of 18 new ones and 22 proposals for expansion and modernisation. Two of the new projects were for comprehensive development of tourist facilities as part of Leisure Industry Development.
Three modernisation proposals were for technical co-operation without any additional investment. One project was for environment protection as part of waste water treatment at a paper mill. The proposals belonged to 15 different industrial sub sectors and involved a total investment of US$3,380 million, including the current net value of existing plant, building and other facilities offered for joint venture establishments for expansion and modernization projects. The distribution of investment is as follows:

New projects : US$ 3,228 million
Expansion etc. : US$ 152 million

Majority of the proposals were supported either by feasibility studies, generally of a pre-feasibility standard, or detailed project descriptions. 28 projects, out of 34 requiring analysis, provided details for processing by PROPSPIN computer software. The results of the analysis are given in the body of the comments on the projects in Chapter 5. Taking into consideration that the rate of interest is between 8 and 9 %. The internal rates of return indicated by the analyses were found generally acceptable.

The 40 selected projects are recommended for promotion through UNIDO Investment Promotion Network.

The project for the production of Photovoltaic cells with the latest advanced technology needs especial support. The required raw material viz. polycrystalline silicon is locally available within the province. But the level of technology presently available in the country is not upto the state of art level and therefore needs to be acquired from appropriate sources. The project also calls for the conduct of a thorough feasibility study on the subject before an investment of the proposed size of US$ 44 million could be committed. It is therefore suggested that UNIDO organizes the study through appropriate channels.

The selected proposals formed less than 5% of the projects offered for overseas co-operation. The Government of Fujian Province is very keen to promote the remaining projects. It is, therefore, suggested that the Provincial Government establishes an investment project promotion facility within the Commission for Foreign Economic Relations. Two or three officials of the commission responsible for the promotional activity may be trained at UNIDO Investment Promotion Services.

A brief survey on the economic and industrial scenario of the Province was conducted as part of the mission activities and the information obtained is summarized in Chapter 3. The salient factors of the industrial sector brought out by the study were:

1. The province was among the first ones to be opened up for foreign co-operation in China. Gradually practically the whole of the provinces investment areas are now open for overseas co-operation.

2. The abundance of forest and mineral resources of the province offer opportunities for fast and continued industrial development.

3. Reforms in the Fiscal and Labour regulations announced by the Central Government of China have had a positive impact on the industrial development of the province,, as is evidenced by the number of foreign participated enterprises established during the last two years.

4. With the reform in Labour law permitting latitudes in recruitment and remuneration of workers according to merit will greatly improve the viability of many of the existing and new enterprises and thereby provide an attractive backdrop for the flow of foreign investments.

INVESTMENT PROMOTION PROJECT IN FUJIAN
PEOPLE'S REPUBLIC OF CHINA

REF: CLT 36/92

REPORT

By
DR. J.M.I.SAIT
EXPERT IN INVESTMENT PROJECT IDENTIFICATION,
FORMULATION AND SCREENING

1.0 INTRODUCTION

1.1 THE PROJECT BACKGROUND

During the visit to UNIDO Vienna on 21 October 1991, the Vice-Governor of The Peoples' Government of Fujian Province in the Peoples' Republic of China requested UNIDO's assistance in the mobilization of foreign investment resources for the Province. Selected sectors had been earmarked by the government and they expected investment projects in these sectors to be identified, formulated and promoted by UNIDO network of IPSs and other focal points. Within the framework of the economic development plan from 1991-1995 (8th five-year plan) of the Province, emphasis was placed on the development of infra-structure including airport, railways, expressways, energy including hydel power, telecommunication, agro-industry, and industrial ventures for the manufacture of building materials, paper and pulp, steel / iron, and petro-chemicals.

1.2 TERMS OF REFERENCE OF THE EXPERT

The Consultant / Expert was required to undertake / assist in the identification, formulation and screening of investment projects and the assessment of their national and foreign investors. For this purpose the following strategy was prescribed:

-conduct a brief sectoral study on the manufacturing sector in the Fujian Province,
-review the available proposals and studies on the investment projects and assess their soundness from the marketing, technological, financial and economic points of view,
-assess the seriousness and qualifications and capacity to invest of the investors,
-formulate the selected proposals into Project Profiles in UNIDO format, and
-screen the proposals using PROPSPIN computer programme.

Realization of the terms of reference and the strategies are discussed in section 2.0 et seq. of this report. A copy of the Terms of Reference/Job Description is attached as Annexure I.

1.3 WORK PROGRAMME OF THE EXPERT

The work programme of the Expert was organized as under.

-One week for travel to and briefing in Vienna, travel to Beijing and travel home
-One week for initial discussions at Beijing, travel to Fuzhou and initial discussions at Fuzhou
-One week for the brief industrial sectoral study
-Five weeks for the preparation, formulation and screening of the project proposals including review of the available studies and reports
-One week for the preparation of final report.

The sojourn in the country spanned from 17 May to 8 July 1992. Field visits were made as follows:

Factories in Fuzhou :	From 22 to 28, May 1992
Up country establishments in Nanping, Shunchang, Sanming, Yongan, Longyan, Xiamen, Quanzhou and Putian:	From 29 May to 11 June 1992
In Ningde, Fuan and FuDing:	From 25 to 30 June 1992

1.4 REPORTS

Investment Project Profiles prepared in the UNIDO format are enclosed separately. (39 numbers). The Project Profiles may be supplemented with extracts from Chapter 5 of this Report, 'Comments on individual Projects' as may be appropriate.

PROPSPIN data are provided on a 1.44 mb micro-diskette. Reports can be generated by combining the datafile with the PROPSPIN master file using LOTUS software. The Diskette also carries a copy of this report produced in Word Perfect 5.1 format.

1.5 PERSONS MET

Persons met by the consultant during his mission are broadly classified into 3 categories.
1. Government, at Beijing and Fuzhou
2. Agency: UNDP, UNIDO, UCIIC at Beijing and Vienna
3. National Investors

A nominal list of the persons met is given in Annexure III.

FUTIAN, CHINA

1.6 ACKNOWLEDGEMENTS

The Expert wishes to place on record his grateful thanks to His Excellency, Mr. Chen Mingyi, the Vice Governor of the Fujian Province, Mr. Wang Hengyu, Vice Director, Foreign Affairs Office, Mr. Chen Yong Ting Vice Director, Fujian Planning Commission and their staff for the excellent co-operation which was provided in abundant measure and was the key factor in the realization of this mission. Especial thanks are due to Mr.Ye Xiaoping, Deputy Section Chief, Fujian Foreign Affairs Office, who took personal interest in the activities of the mission, organized all the meetings and visits and actively participated in the discussions acting also as interpreter.

Grateful thanks are due to Mr. Ian Davis, UCD, Mr. J. Nygard UNIDO JPO, Mr. Liu Lianke, Director, and other members of the staff of UNIDO Beijing Centre for their guidance. The expert would also like to express his grateful thanks to Ms. M. Subroto and Mr. F. Svarc of IID, UNIDO, Vienna for the able guidance and assistance received from them.

A large number of persons in the host country, The Peoples' Republic of China contributed to the work of the expert. It is not practicable to mention each of them by name. The expert is deeply indebted to them for the great amount of understanding, co-operation and assistance extended to him and would like to place on record his appreciation of the same.

2.5 Agriculture

Over 80% of Fujian's 1.24 million ha of arable land constitutes rice fields. Rice production in 1990 stood at 8.8 million tons. Other major food crops include wheat, sweet potatoes, soy beans, and pea-nuts. Main cash-crops include sugar cane, tea, fruits, tobacco, rubber, jute and bluish dogbane. Per ha production of sugar cane in Fujian is claimed to be the highest in China while it is the third largest producer of sugar in the country. With an annual production of 58,000 tons the province ranks fifth in production of tea. Annual production of fruits nears 760,000 tons.

2.6 Forestry

About 47% of the province's total area constitutes forests. With a coverage of 43.2%, Fujian's commercial forests cover about 4.67 million ha containing an estimated timber reserve of 378 million cu.m. Major tree types include masson pine, cedar, cypress, cryptomeria, camphor, nanmu, tung-oil tree,tea-oil tree, and mao-bamboo. Other forest products include resin, bamboo shoots, xianggu mushrooms, white fungus, tannin, lotus seeds and a host of herbal medicines.

2.7 Fishery

Fujian has a sea area of 136,000 sqkm of which 125,000 sqkm is considered to contain rich fishing grounds. There are about 180,000 ha of tidal land well suited for aquiculture. Fish farming along the coast has progressed considerably and the presently used cultivation area totals 57,000 ha as under:

Shell fish	33,000 ha
Algae	7,000 ha
Prawn	13,000 ha

In addition to this, fresh water pisci-culture is undertaken in farms extending over 54,000 ha. Tilapia, Eels and ten local species of fish have already found established domestic as well as overseas markets. In 1990 total output of aquatic products reached 1.178 million tons.

3. A BRIEF SURVEY OF THE INDUSTRIAL SECTOR IN FUJIAN PROVINCE

3.1 An Overview

Fujian Province was the first autonomous entity in China to open its doors to outside world with a strong bias towards its industrial development and exports. A strong industrial base has already taken shape. At present there are 14,100 industrial enterprises in the province at or above township level employing over 1.3 million persons in productive activities. These include more than 200 large and medium sized key enterprises. Industrial scenario of the province presents a diversified picture involving industries in the field of:

-Building materials	: cement and glass
-Forest products	: lumber, paper, fibre board, furniture and forest chemical products
-Light engineering	: sugar, canned food, cigaretttes, plastic products, porcelain ware, toys, optical lenses, jewelry and handicraft
-Electronics	: TV sets, T.V. picture tubes, refrigerators, cassette tape recorders, calculators, semi-conductors, computers, printers and various electronic components
-Textiles	: textile printing and dyeing, garments, polyester fibre, vinylon, foot wear, head-gear
-Chemicals	: calcium carbide, caustic soda, PVC,chemical fertilizers,rubber products
-Machinery	: Electrical machinery and equipment, construction machinery, shipbuilding
-Metallurgy	: iron and steel,. aluminium and aluminium products
-Energy	: Electricity and coal

Continuous upgradation with the acquisition of newer technologies had been carried out on more than 1,200 projects since 1979. This exercise is still continuing and one of the major emphases of the province in its search for foreign collaborations is on the acquisition of advanced technologies. Some of the industries already modernized with imported equipment and technology include the following:

Fuzhou Fibre Board Factory	(Equipment from USA)
Shunchang Cement Plant	(Equipment and technology from Australia
Xiamen Photo sensitive Materials Factory	(Equipment and technology from Kodak)

Total outout of the industrial sector during 1990 was valued at 52.7 billion yuan and that of 1991 at 65.6 billion yuan and comprised of the following.

	1990	1991
Steel	517,000 tons	564,700 tons
Pig iron	626,000 tons	592,900 tons
Timber	4,240,000 cu.m	n.a
Cement	5,400,000 tons	6,468,700 tons
Coal	9,250,000 tons	8,571,900 tons
Electricity	13,670,000 mwhs	15,176,000 mwhs
Sugar	326,000 tons	305,100 tons
Crude salt	672,000 tons	1,202,300 tons
Cigarettes	764,000 cases	54,800 tons
Canned food	144,000 tons	162,100 tons
Paper and paper board	521,000 tons	506,000 tons
TV sets, colour	1,230,000 sets	1,365,100 sets
b & w	125,000 sets	n.a.
Power generators	96.7 megW	151.76 megW

3.2 Township Enterprises

Township enterprises total about 460,000 and employ approximately 2.7 million persons in the Province's rural areas. The total output from these enterprises has been valued to be in the vicinity of 25.1 billion Yuan (US$ 4.6 billion) in 1990 and 32.9 billion yuan (US$ 6.0 billion) in 1991 and accounted for almost one half of the total industrial output of the province. There are varied types of ownership for these enterprises, such as, township-owned, village-owned, collectively owned, farmers' joint ventures, privately owned. These enterprises among themselves account for the export to some 50 countries in the world of more than 500 items which include shoes, knitwear, wooden and bamboo products, plastic and porcelain-ware artifacts and handicrafts. According to the Directory of Export Oriented Enterprises published in October 1988, there were some 880 enterprises in the Fujian Province engaged in manufacture of goods and/or providing services for export. Value of exports by the Fujian township enterprises in 1991 was US$ 4.79 billion.

3.3 Foreign Investment in Industries

In 1979 the Chinese Government decided to open itself up to the outside world with a view to improving its foreign trade relations particularly by inviting foreign participation in financial investment, technical collaboration and world market penetration. As a first step 4 Special Economic Zones were established. One of these 4 zones, Xiamen is in the Fujian Province. When 14 coastal cities were opened in 1984, Fuzhou was one among them. Further, in 1985 the Fujian Triangle comprised of Xiamen, Zhanzhou and Quanzhou was opened up. Since 1979 Fujian has attracted considerable foreign investment. By the end of 1991 the province had signed 4970 contracts involving US$ 4.26 billion. Out of the negotiated sum of US$ 4.89 billion, actual investments realised at the end of 1991 stood at US$ 1.77 billion in 2,687 projects. Out of the above figure 1,203 enterprises accounting for an investment of 1.6 billion represent Taiwanese inputs. In 1991 1,219 contracts worth US$ 1.537 billion were signed, the actual implementation being US$ 724 million. According to the recently released figures during the first six months of 1992, 718 contracts valued at US$ 1.058 billion were signed and implementation reached US$ 508,000 million. (July 1,1992).

The foreign investment and the collaborations involving high-tech production systems greatly boosted the foreign trade of the Province. The export volume of the Province in 1950 was only US$1.96 million. Growing at a rate of 17.7% p.a. over a period of 28 years the figure stood at US$ 190 million in 1978, i.e. in the year just previous to the opening up. The export figure for 1989, at end of the first decade thereafter, reached US$ 1.662 billion and registered an average growth rate within the decade of 21.5% per annum. 58.9 % of this volume was contributed by ten categories of industries such as aquatic products, shoes, canned food, light industrial products, machinery and electrical goods, metals and minerals, medical and chemical products, textiles and garments, tea, art jewelry and forest products. The corresponding import volume was US$ 735 million. Among the enterprises with foreign capital 69 units had export value over US$ 1 million and 15 over US$ 5 million. Some of the larger exporters were:

Xiamen Overseas Chinese Electronic co. Ltd,	US$ 63.42 million;
Fujian Hitachi Television Company	US$ 25.81 million;
Putian Hanjiang Footwear Company Ltd	US$ 10.30 million
Xiamen Baohang Electronics Co.Ltd	US$ 9,42 million;
Fujiang Lifeng Footwear Co.Ltd	US$ 8.03 million;

FUJIAN, CHINA

Value of export earnings from manufacturing and assembly operations using client-supplied materials and components amounted to US$32.19 million. According to preliminary figures provided, export volume for 1990 and 1991 was US$ 2.24 billion and US$ 2.93 billion respectively. The first six months of 1992 recorded an export volume of US$ 1.369 billion. Export volume of ten major product groups in 1991 had been as under :

	Quantity	Value US$
Frozen fish	4,297 tons	10.58 million
Xiangu Mushrooms	34,846 tons	16.80 "
Canned Asparagus	18,413 tons	29.74 "
Pine Resin	22,526 tons	10.94 "
Grey Cloth	76.25 m.meters	12.11 "
Plastic Slippers	74.48 m.pairs	36.85 "
Canvass and Rubber Shoes	10.91 m. pairs	12.11 "
Artificial Leather Shoes	3.63 m. pairs	13.48 "
Nylon Bags	45.31 m. pcs	48.73 "
Colour TV	602,000 sets	114.50 "

3.4 Xiamen Special Economic Zone

The Xiamen Special Economic Zone, one of China's first four economic zones, was opened to the outside world in 1980. By the end of 1990, the city had approved 980 foreign investment projects with an investment content of US$ 2.926 billion, the foreign currency component in it being US$ 2.121 billion. The 506 foreign funded enterprises which were by then in operation produced 3.677 billion Yuan of industrial output reckoned as 54% of the total production value of the city. In the first half of 1991 the city approved 72 foreign funded enterprises with a registered capital of US$ 59.12 million. Total investment created by these enterprises amounted to US$ 83.04 million with a foreign exchange component of US$ 52.86 million. There are 192 specialized corporations with import and export rights. A foreign trade management system has also been formed, such as industry and trade import and export corporations, foreign trade corporations of the central, provincial and foreign funded enterprises. The 1990 foreign trade value of goods passing through Xiamen was put at US$ 1.152 billion. The export market served by the zone now comprises of the United States of America, Japan and European countries besides Hong Kong, Macao and South-east Asia. The city has used joint venture and co-operative forms to establish 18 production enterprises in seven countries and regions abroad

including USA, Thailand and the Philippines. It has developed labour service contracts and executed overseas projects.

There has been considerable development in the infra-structural facilities of the zone during the last decade. The Xiamen bridge connecting the island to the mainland was opened in December 1991. The bridge can handle 25,000 motor vehicles a day. Air services have been established through the Xiamen International Airport on 35 domestic and international routes, with cities like Los Angeles, Singapore, Penang, Manila, Djakarta and Hongkong on its route-map. The air passenger transport volume reached 1.15 million people in 1990. Completion of four 10 ton class berths in the Dongdu Harbour increased the cargo handling capacity of Xiamen harbours to 5.29 million tons. The urban telephone exchange capacity has reached 43,000 lines with DDD and IDD facilities connecting 186 countries.The daily water supply capacity now stands at 301,000 tons. During the last decade, a 110 kv and a 220 kv sea-bed power line, 220 kv Lilin, Banlanshan and Dongdu transformer substations and a 96,000 kw gas turbine reserve power station were built. To adapt itself to an export oriented economic development, Xiamen has developed the production factor market which includes provision of goods and materials, funding, real estate, labour services, technology and information, an improved financial system and an expansion of loans by special banks. The city has also established a foreign exchange regulation centre, companies dealing in international trust and investment, foreign investment services and material supplies and other service centres to help resolve any investment or operational difficulties confronting foreign businessmen. In September 1991, the Xiamen Foreign Investment Work Committee was established and is charged with the responsibility of approving foreign investment projects and supervising the foreign-funded enterprises. It has introduced a single approval procedure to avoid duplication of efforts by other sections.

Xiamen which faces Taiwan across the Taiwan Straits has a similar culture and language. This together with the developing investment environment and cheap labour has attracted Taiwanese investment in good measure. Between 1984 and 1990, 410 Taiwanese funded projects were approved; this constituted 42% of the 980 foreign-funded projects approved by the city during that period. Contractual value of these approvals amounted to US$987.6 million (45.3%). The Taiwanese projects in Xiamen accounted for 20% of the 2,080 similar projects in number and 50 % of US$ 2 billion in value. Implemented value of these investments amounted to US$ 897.7 million (53.78% of the US$1.669 billion in operational

foreign funds). At the end of the decade there were 309 solely Taiwanese owned enterprises in operation with a total investment of US$ 813.6 million. Some of the characteristics of Taiwanese enterprises are noteworthy.

-90% of the enterprises operate in productive sector
-89% of the products are exported.
-The investment scale has expanded from small individual concerns to medium and large sized firms. By the end of 1990 there were 11 projects with investment equal to or more than US$10 million, with the largest one worth US$ 200 million.
-Companies have undertaken land development activities resulting in development of unique industrial villages.
-Investment terms have been enlarged from 15/25 years to 20/50 years and in certain cases to 70 years.
-In the early stages factory space was being rented; now they buy land and buildings and construct their own facilities.
-Imports of single machine items has given way to import of whole machine units or major equipment with auxiliaries.
-Taiwanese investment has stronger focus towards secondary chemical industries and real estate business.

In 1989 Xiamen established Taiwan investment areas in two areas viz Xinglin and Hailun. These two areas enjoy privileges of special economic zone and at present construction activity is going on. The area in Xinglin has imported 80 foreign-funded projects worth US$ 200 million. 30 Taiwan funded projects have already gone into production generating about 300 million Yuan worth output. It is estimated that by the end of 1993 the number of Taiwanese-funded projects would reach 100 with a total investment of US$ 500 million and output value of 1.1 billion Yuan.

At the end of the last decade the GNP of Xiamen stood at 5.016 billion Yuan. The Eighth Five year Plan (1991-95) envisages an average annual growth of GNP of about 25% resulting in GNP of 22 billion yuan by 1995 and 50 billion yuan by the year 2000. The percapita GNP which was 4,535 Yuan is expected to grow to 36,710 yuan by the turn of the century. The national income calculated on current prices totalled 4,114 billion yuan indicating a percapita national income of 3,720 Yuan as against 631 yuan in 1980. The total of industrial and agricultural production rose to 7.118 billion yuan.

To achieve the forecasted targets of GNP Xiamen island will focus on high-tech light processing projects with high value addition possibilities and on services such as finance, real estate and commerce and on tourism. Xingling district will mainly concentrate on industries which will consume less energy and

cause minimum pollution with emphasis on chemical, mechanical and electronic industries and building materials, textiles and light manufacturing industries. In other districts preferential treatment will be offered to foreign investors to undertake infrastructure development activities to lift them to attractive investment areas. According to Mr. Zou Erjun, Mayor of Xiamen city, "Xiamen will continue to open its door in the future and foreign businessmen are invited to invest in a variety of fields in Xiamen in many ways".

In the following decade Xiamen will continue to strengthen its infrastructure. Ten large infrastructure projects have been set in the Eighth Five Year Plan:
-Increasing the capacity of Dongdu dock by 3.5 million tons
-Xitongdao bridge connecting Xiamen island and Haicang district
-Second phase of Xiamen airport development
-A water supply project to handle 560,000 tons of water per day
-Addition of 40,000 programme controlled telephone network
-Songu Power Plant with a generating capacity of 600,000 kw
-Harnessing Yundang lake
-A garbage disposal plant
-A gas and LNG plant
-Improvement to municipal roads.

3.5 Fuzhou Economic and Technological Development Zone

This Zone was established in Mawei in January 1985 and covers an area of 4.4 km. It is located where the Min River empties into the sea. The location is of historic, traditional and industrial importance. The Mawei port is a natural harbour with many centuries of reputation; the Mawei Ship Yard was built in 1866 by the French and is in operation till today. The Zone is only 19 kilometers away from the city centre and therefore enjoys all the suburban benefits. It is 149 miles away from Keelung, Taiwan and 492 miles from Hongkong. During the last six years the infrastructure has been developed considerably by undertaking construction of a first grade road from Fuzhou, establishing a thermal power station, modernized water supply, telecommunication and other facilities. During this period 127 projects have been introduced from China and abroad. Of these 82 are foreign funded. Total investment so far had been US$ 429 million, including over US$100 million in foreign currency.

The scenario is characterized by light industry, building materials, electronics, metallurgy, pharmaceuticals fishing and marine product processing. The development Zone is separated from Taiwan by a narrow strip of water. In order to facilitate investment by the Taiwanese in the Zone an area of 1.8 sqkm was set aside as Taiwan Development Zone. By the end of 1990 more than 30 projects had been concluded here. With a view to speeding up the process of dissemination of the results of scientific and technological developments to the industry, The Fuzhou Science and Technology Park was established in the Zone. Following this the Keli Hi-tech Industrial Park, Fujian Qinghua University Science and Technology Park, the wholly foreign owned Fuzhou Pan Pacific Ocean Science Park Co. Ltd. and Tai An Tech and development Inc. of Fujian have already started operation.

3.6 Open Port City of Fuzhou

Fuzhou is the capital city of Fujian Province. In 1984 it was designated one of the fourteen coastal open cities. During the five years ended 1990, Fuzhou has invested about 1.1 billion yuan to develop its infrastructure. Major developments include expansion and modernisation of the telephone and other communication systems, expansion of the airport, dredging and expansion of Mawei port and erection of a new power station. Existing enterprises were renovated and modernized with the assistance of imported technology and many new enterprises established. The city's industrial focus had been on electronics, plastics, textiles, machinery and toy manufacturing. By the end of 1990 approvals had been accorded to 857 enterprises, of which 194 Taiwanese, with an overseas investment of US$ 620 million. 430 enterprises have already gone into production.

3.7 Coastal Economic Open Areas

In 1985 eleven counties and cities in south Fujian were designated Coastal Economic Open Area with Quanzhou and Zhangzhou as focal Centres. In January and March 1988 thirty three counties and cities were added to the list. Besides being the agricultural hinterland for the other Economic Development Zones, these areas also represent the direct impact areas of these Zones. Two areas of notable development as a direct result of their proximity to the Xiamen Special Economic Zone are the Jiulong river delta in Zhangzhou and Quangzhou. These areas will on the one hand act as

the rear base for the major Development Zone and will on the other hand provide room and incentive for the spread of development activity when the Zones tend to get overcrowded and consequently more expensive. Already investment activity has commenced in these areas. By the end of 1990 1,008 enterprises have been approved for establishment in the Open Areas. 600 foreign invested enterprises are reported to have gone into operation. These include four enterprises involving over 100 million yuan each and more than 30 enterprises involving over 10 million yuans each. An industrial network has been formed in Nanping, Shaowu and Longyan cities. These towns and cities enjoy the treatment of key satellite towns.

3.8 Nanping Prefecture

3.8.1 Natural Resources

Nanping Prefecture lies in the north western part of the Fujian Province. It has an area of 26,300 sqkm and a population bordering 3 million. The economy is predominantly agrarian covering 67% of the population. The prefecture is very rich in its natural endowments which include an abundance of forests consisting of 1.5 million hectares of forests with an estimated timber reserve of more than 100 million cubic meters of china fir, masson pine, camphor, sassafras, beech etc. and 240,000 hectors of bamboo growing area with about 440 million poles. The forest coverage rate reaches 62.5 %. The main stream of the Min River, Jianxi and Futunxi- two tributaries of the Min River run through the Prefecture. The hydroelectric potential is estimated to be around 3,900 mega watts. Existing generation capacity amounts to 217.6 mega watts (870 million Kwh). Shaxikou power station, now under construction, will have a capacity of 1.4 million kilowatts. More than 50 kinds of minerals have been discovered in the Prefecture. The proven ones include lead, zinc, sulphur, iron, niobium, tantalum, platinum, lithium, tin, fluorite phosphorous, serpentine, graphite, limestone, talcum, rock crystal, granite and marble. Wuyi Mountains provide many attractions which can be developed into tourist resorts.

3.8.2 Agriculture

Major agricultural products include tea, fragrant mushrooms, min bamboo shoots, lotus seeds, food grains, oilseeds and fruits. Total value of agricultural output in 1989 was valued at 1.1 billion Yuan, and included 1.56 million tons of food grains, 14,000 tons of tea and 58,000 tons of fruits.

3.8.3 Industry

There are more than 2,000 industrial enterprises in the prefecture. 433 of them are state owned and 1,477 collectively owned. Out of the 176 projects with contract value over US$50 million approved for joint venture investments, predominantly with Taiwanese and Macao partners, 138 with investment of US$ 23 million are already in operation. Financing of the Projects in the prefecture by international financing institutions and bilateral aids has crossed the US$ 110 million mark. 630 major industrial products were being manufactured in the prefecture in 1989. The value of industrial production was reckoned at 2.5 million Yuan. the main industries in the area include:

Paper and pulp making- 14 mills with a total capacity of 120,000 tons of paper and 250,000 tons of paper board.

Forestry industry- 249 enterprises specializing in timber felling, shipping and processing as well as forest chemistry. Main products include fibre boards, plywood, shaving boards, floor woods, bamboo ply-wood, turpentine, resins, activated carbon and furniture making.

Chemical industry- 27 enterprises engaged in the manufacture of pesticides, fertilizer, pharmaceuticals, minerals, acetylene, carbon black, caustic soda, sulphuric acid, paints, rubber and plastic items.

Food Processing- 24 enterprises in processing cereals, meat products, tea, canned foods, wine, beer, sugar, gourmet powder etc.

Textiles- 32 units produce chemical fibre, textiles, knit wear, silk, cotton shirts, corduroy, towels, stockings, woven shirts and other costumes; and also process dyeing and printing.

Machine building- 38 enterprises are involved in production of electrical machinery, machine tools, electric wires and cables, forestry machinery, farming machinery and tools, hydro-power equipment, cutting tools, grinders, forklift and farm trucks.

Building Materials industry has 15 key industrial units engaged in the production of Cement, lime, glazed tiles, ceramics, marble slab stone, compressed glass, refractory material and machine-made bricks.

3.8.4 Township Enterprises

At the end of 1989 there were 45,743 township enterprises run by various organizations as under:
1,872 by town-ships
5,990 by villages
2,614 by association of families and
35,267 by individuals. They dealt with small and tiny sector industries and employed a total of 215,700 persons. Exports by the town-ship enterprises in 1989 amounted to 74.45 million Yuan, while total value of exports from the prefecture exceeded 300 m. Yuan.

3.9 Sanming City

3.9.1 Natural Resources

Sanming City is located at the valley basin between the ranges of Wuyi mountain and Daiyun mountain and is mountainous in topography with hills between 200 and 800 metres above sea level. Sixty six different minerals have been found in the area. They include raw coal, limestone, tungsten, iron, manganese, barite, tin ore, fluorite, lead, zinc, marble, kaolin, white mica, gold, ruby, sapphire etc. Coal deposits form 42.2 % of the total deposits in the province while 90 % of Fujian's tungsten deposits are in Sanming. Limestone deposits are estimated to be over 50 billion tons. 66% of Sanming city is covered by forests which are estimated to contain 118 million cubic metres of timber reserve. (Almost one third of the province's total reserves.) Belonging to the Min Jian River system, the three main rivers, Shaxi, Jinxi and Youxi have a total length of 875 km and provide an installed power generation capacity of 1.7 million kilowatts.

3.9.2 Agriculture

The main food grain produced in the city is rice and the most recent figures estimate the annual output as 1.27 million tons. The main economic crops are tea, tobacco, bamboo shoots, medicinal herbs, mushrooms, lotus seeds and many varieties of fruits.

3.9.3 Industry

About one-fourth of the province's industries are located in Sanming. There are more than 2,000 industrial enterprises, 20 of them in the large and medium types. The larger ones are engaged in manufacture of iron and steel, chemical fertilizers, cement, synthetic fibre, textile printing and dyeing, paper, coal, chemicals and plastics.

3.10 Longyan Prefecture

3.10.1 Natural Resources

Longyan Prefecture is located in western Fujian and shares common boarders with Xiamen Special Economic Zone and Gangdong province both of which are preferred areas of development with focus on foreign investment. The prefecture is mountainous in topography, the average height of the hills being 460 metres above sea level. 42 kinds of minerals including coal, iron, manganese, tungsten, bismuth, molybdenum, titanium and other rare earths, lead,zinc, limestone, kaoline, bentonite and marble deposits have been found. Proven deposits of coal, iron, manganese, kaoline and bentonite account for more than 50% of the total deposits in the province. The Makeng Mine is the largest pay-iron-ore deposit in East China. The three major river systems, Tingjiyang, Minjiang and Jiulong, annually total a run off capacity of 19 billion cubic metres with an estimated power generation capacity of 1.69 million kw. Out of the 1.24 kw which is exploitable only 146,000 kw is presently generated. Geothermal energy has been located at 28 places with the temperature of hot springs varying between 40℃ and 80℃. The forest area covers 62.5% of the total land and is estimated to contain 72.89 million cubic meters of timber reserve and 130 mill. mao bamboo. The main timber species are pine, china fir and tung tree.

3.10.2 Regional Economic indicators(1988) RMB Yuan

GNP	2.255 billion
Per Capita Income	1,028
Financial Income	389.63 million
Industrial Output	1.577 billion
Agricultural Output	0.691 billion

3.10.3 Agriculture

Total output of rice in 1988 was 907,000 tons. The main cash crop is tobacco . Production of flue-cured tobacco in the same year was 20,060 tons. Tea and fruits constitute other important agricultural products.

3.10.4 Industry

In 19 88 there were 1,255 industrial enterprises employing 135,000 workers. There were 262 state-owned and 982 collective enterprises. Coal industry has an annual output over 4.08 million tons. In the metallurgical sub sector there were 21 enterprises producing pig iron, rolled steel and ferro-alloys. There were 152

units engaged in machinery industry manufacturing farm implements, pumps, bearings, bicycles and vacuum cleaners. Building materials industry comprised of 134 enterprises including 63 large and small cement factories with an annual production capacity of 970,000 tons. Out of the 30 industrial units in the chemical industry sub sector 8 were producing chemical fertilizers and others chemicals like sulphuric acid, caustic soda, bleaching powder and paints. There were more than 100 units engaged in felling, lumbering and production of plywood, fibre boards, furniture, activated carbon etc. 41 enterprises were producing light engineering goods valued at a total of 230 million yuan. 21 units engaged in the manufacture of textile goods provided the main base for the export of bed sheets in the province.

3.10.5 Township Enterprises

There were 59,248 township enterprises with the following ownership pattern viz:

private	52,838
township	805
village	3,262
collective	2,343

They produced a total income of over one billion yuan in 1988 and are growing into an important economic sector in the country side in west Fujian reflecting the present trend towards encouraging private ownership.

3.10.6 Modernisation of Industries

The prefecture has given great importance to the modernization of its existing industrial enterprises. Until the end of 1988, 16 enterprises imported 19 sets of advanced equipment and relevant technology worth US$ 21.6 billion from countries like the United Kingdom, West Germany, Switzerland, Japan and the United States of America.

3.11 Ning De Prefecture

Ning De Prefecture, otherwise called Mindong, is situated at the northeast of the Fujian Province with hills in the back and the sea in front and faces Taiwan across the ocean.

The prefecture is industrially less developed. It has a reasonably good network of roads within and also connecting principal cities of the Fujian Province as well as the neighboring province. The railway connects Fuzhou to the Laizhou

in Gutian district. There a number of natural harbours and deep-water quays serving ships plying between Taiwan, Hongkong and East Asian destination and China. Fu 'an Xiapeshi 5000 ton berth-quay with a container installation will be commissioned soon. Total present availability of electricity is 160,000 KW. Construction of Huyangxi Stair hydro-electric station with about 400,000 KW capacity is about to commence. Total water supply capacity now is 150,000 tons per day. This will be enhanced to 230,000 tpd with the commissioning of the two projects under execution. With the recent opening up of the prefecture to outside world opportunities for industrial investment, particularly in agro-based and light industries, are increasing. The prefecture also has many natural tourist attractions such as the Tai Mu mountains with unique rock formations and light adventure, trekking and mountai-neering, possibilities.

3.12 Private Sector Development

Private Sector in the Province is now limited to small and tiny enterprises organized by individuals and small family groups. They also include individual and small scale joint ventures with Taiwanese. The recent development policy announcements have strong bearing towards greater involvement of private sector in industrial development. As funds mobilization in the private sector is now slow, service industry is considered the focal point for the development of this sector which will in future telescope into meaningful investment in productive industry. The government of Fujian Province, following the policy indications released at the 20th Standing Committee meeting of the Seventh Chinese People's Political Consultative Conference (CPPCC) which ended on 25th June 1992 in Beijing, has decided to provide specially augmented support in developing the service industry in the private sector. The policy is believed to provide employment opportunities to the workers who were and will be laid off with the implementation of the new labour policy. It is estimated that by 1995, 40% of the working population of the province will be engaged in non-agricultural operations at township level, to a large extent including, service and tertiary industries and will account for over 6% of its economy.

3.13 Preferential Policies for Foreign Invested Enterprises

Enterprises in the designated development zones and areas are offered tax and other incentives varying in their extent and applicability depending on the locations and ownership pattern. A chart published by the Fujian Provincial authorities is attached as
Annexure II.

3.14 Foreign Exchange Regulations.

Extracts from the recently published foreign exchange regulations applicable to overseas investments are given in Annexure III.

3.15 Regulations on Leasing of Land to Foreign Investors

According to the Constitution of the Peoples' Republic of China, the land is owned by the State. In order to step up construction of public facilities and improve the investment environment, the State Council of the Peoples' Republic of China issued Provisional Regulations on Leasing Land to Foreign Investors on May 19, 1990. The 18 article regulation defines the development and construction of tracts of land as the comprehensive development and construction of tracts of land after 'state-owned-land use right' is obtained. This includes land levelling and construction of public facilities including water supply and drainage, electricity and heat supply, road communication and tele-communication to make the land usable for industry and other purposes. The investor can then transfer the land use right and do business by providing public facilities, or it can construct buildings, including industrial workshops and accommodation facilities, transfer or lease the buildings. The Regulations stipulate that in order to lease tracts of land for development, foreign investor should establish Chinese-Foreign equity joint ventures or Sino-foreign contractual joint ventures or enterprises operated exclusively with foreign capital, in line with the laws regarding Chinese-Foreign Equity Joint Ventures, Sino-Foreign Contractual Joint Ventures and Enterprises Operated Exclusively with Foreign Capital, as the case may be. They enjoy autonomy in operation and management according to law; but they have no administrative power in the development area. The relationship between the land development enterprises and other

enterprises is a commercial one. Land Development Enterprises can attract investors to development areas to be leased with the state-owned land use right and launch enterprises in such areas. Land Development Enterprises must carry out the programmes for develop- ent of tracts of land and honour the terms of contract of leasing the state-owned land use right before they transfer the right. Transfers are required to be registered with local authorities and subject to payment of transfer fees.

The Regulations provide that after the land use right is leased, natural resources and buried objects still belong to the state. If they need to be developed, the relevant laws and administrative regulations should be observed. The regulations also apply to firms, enterprises and other economic organizations or individuals from Hongkong, Macao and Taiwan which intend to lease tracts of land for development.

The longest duration of land use for different trades and industries are as follows:

1. Industry	40 years
2. Commerce, Communication and public service	50 years
3. Housing	70 years
4. Technological, educational, cultural and health care projects	60 years
5. Other purposes	30 years

Leases beyond the stipulated periods, subject to a limit of 70 years are possible in exceptional cases involving huge investment in development of infrastructure. The leases are renewable at their expiration if the enterprises still continue in business.

3.16 Shift in the Labour Policy

One of the objectives of China's economic package in 1992 is the reform of the labour system with a view to clear the way for the enterprises to compete on the open market for qualified personnel. About 12 % of China's 500,000 enterprises have been given a free hand in recruitment. According to press information, 940,000 workers were laid off out of the 17 million employed in 40,000 enterprises. Most of them have been shifted to non-production sectors or are being retrained. Over the past four decades Chinese enterprises are said to have had difficulties in deciding pay-roll distribution, hiring workers and appointing or transferring cadres in line with production needs or performance of the personnel. The reform aims at easing this situation permitting

workers to choose their jobs according to their skills and interests. It also enables the enterprises to chose the workers in accordance with their needs. A growing number of firms are adopting labour contract system whereby specific terms are negotiated with the employees providing for job security on one hand and performance standards on the other. The reform of the labour system also includes creation of a new wage distribution and social security system. The most important effect of this on the foreign investment will be to allay the fears of the foreign investors about the rigidity of the system and the lack of flexibility in hiring and remunerating the labour according to its performance. The measure should provide conducive environment to attract foreign investment into Fujian Province as well.

4.0 PROJECTS SELECTED FOR THE STUDY

4.1 Process of Selection

The Fujian Planning Commission and the Fujian Economic Commission are basically responsible for the selection of investment projects for promotion through UNIDO channels. The two agencies had prepared lists of projects for foreign investment. At the beginning of the mission the representatives of the Commissions were informed of the scope of the studies which was limited to industrial investment projects sought to be established with assistance from or in collaboration with foreign entrepreneurs. This clearly eliminated the projects meant to be financed by bilateral or multilateral aid agencies and infrastructural projects. Out of the remaining ones, 18 new and 22 expansion/ modernization projects (40 in all) were selected according to the priority assigned to them by the government. The final selection also depended on whether they were approved by the central or provincial government and where appropriate by the independent autonomous authority. The sub-sector-wise analysis of the projects is as under:

Sub sector	New Projects		Expansion/Modernization	
	no.	Total Investment m.US$	no.	Total nvestment m.US$
Plastics	4	122.16		
Wood products	2	52.04		
Petro chemicals	2	2,014.00		
Building Materials	4	494.93		
Le.sure industry	2	486.36		
Packaging	1	2.78	1	1.00
Light Engineering	2	11.96	4	26.51
Electronics	1	44.00	2	8.00*
Pharmaceutical			2	6.38*
Power Generation Eqpt.			3	6.46*
Other equipment			3	16.91
Ship building & repairing			2	33.58
Paper & Paper products			2	17.00
Mineral processing			2	23.60
Food processing			1	12.52
Total	18	3,228.23	22	151.96

* One item in each of these groups is for technical know-how only and envisages no investment.

Majority of the proposals were supported by feasibility studies. However, they being in the Chinese language could not be directly reviewed in depth. It was also not practicable to obtain English translations within short time available. Never-the-less information required to develop the project profiles was extracted from the studies as far as practicable with the assistance of the coordinating personnel and officials of the sponsoring institutions. In a majority of cases the existing manufacturing enterprises were visited and detailed discussions held with the representatives of the project sponsors in order to obtain as much first hand information as possible and to reconfirm the data provided. The project sponsors have undertaken to provide translations of the feasibility studies to serious prospective partners during their initial discussions. It is not out of place to mention that in some cases it was not possible to correlate information as required by the UNIDO format and that provided by the feasibility etc.studies. In such cases further review will be needed after english versions of the studies are made available.

Wherever the available data was in conformity with the requirements of appraisal by the UNIDO Investment Project Screening Computer Software, PROPSPIN, the screening exercise was also carried out.In certain cases the data provided had to be interpolated or modified to obtain a near-to-reality picture. 14 new Projects and 14 modernization Proposals (28 out of 40) were screened and the results are provided separately on computer diskettes.

4.2 Summary of Selected Projects

JV : Joint Venture with investment;
TK : Technical Collaboration
LN : Equipment on loan or Supplier's Credit;
LS : Equipment Lease
EX : Export Marketing

4.2.1 New Projects:

Sl no.	Product	Quantity	Investment million US$	Assistance sought
1.	FUJIAN NO.2 PLASTIC FACTORY*			
	BOPA Nylon Film	3,000 tpa	23.87	JV
2.	ORIENTED STRAND BOARD FACTORY*			
	Oriented Strand Board	50,000 CM	19.00	JV, LN
3.	ETHYLENE PRODUCTS*			
	HPLD Polyethylene	100,000 tons		
	LLD/HD Polyethylene	100,000 tons		
	Ethylene Glycol	100,000 tons		
	Polystyrene	60,000 tons		
	Polypropylene	140,000 tons		
	ABS	150,000 tons	1,966.00	JV
4.	SANMING CHEMICAL FACTORY I*			
	Melamine	12,000 tons	18.26	JV, TK LN, EX
5.	SANMING CHEMICAL FACTORY II*			JV, TK
	Butanediol	27,000 tons	48.00	LN, EX
6.	FUJIAN CHEMICAL FIBRE AND CHEMICAL FACTORY*			
	PVA Film	3,000 tons	15.03	JV, TK
7.	SANMING PRINTING AND DYEING FACTORY*			
	Artificial Silk Fabric	2,000 tons		JV, TK
	Artificial Wool Fabric	1,000 tons	65.00	LN
8.	ZHANG PING LINDOW CEMENT FACTORY*			
	Portland Cement	3.1 m.tons	433.38	JV

9. DAZHOU TIMBER YARD*			JV, TK
Fibre Board	50,000 cu.m	33.04	LN, EX
10.GRANITE TILES*			
Granite Tiles	80,000 m²	3.55	JV, EX
11.NANPING BATTERY FACTORY*			
Alkaline Battery LR03	30 million	7.86	JV, LN
12.SHUNCHANG CEMENT PLANT PHASE II*			
Portland Cement	620,000 tons	50.00	JV, LN
13.HOMOGENIZED CERAMIC TILES*			
Wall and Floor Tiles	900,000 m²		JV, TK
Polished Tiles	100,000 m²	8.00	LN, EX
14.OPTICAL FIBRE CABLE			
LXZ	1,000 KM		
GYTB 33	500 KM		
GL23-1000	500 KM	4.10	JV, LN
15.SOFT FOOD PACKING MATERIALS*			
Aluminium lined BOPP sacs	8.8 m.m²		
Calendars and Pictures	9.8 m.m²	2.78	JV, LN
16.PHOTOVOLTAIC CELLS			JV, TK
Photovoltaic cells	50 m. pcs	44.00	LN, EX
17.MEZHOU TOURIST COMPLEX	17 sub-projects	336.36	JV
18.TAI MU TOURIST COMPLEX	9 sub-projects	150.00	JV
Total		3,228.23	

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4.2.2 Expansion or Modernization Projects:

Sl no.	Product	Quantity per year	Investment Million US$	Assistance sought
1.	L-MALIC ACID:*			
	L-malic Acid	1,000 tons	6.38	JV
2.	CEFAZOLIN SODIUM:			
	Cefazolin Sodium	30 tons	nil	TK
3.	POWER GENERATORS:			
	Generator, 200 KW	1,800 nos		
	Low noise Generator set	1,200 nos		
	Y Series Motor	15,000 nos	2.73	TK, LN
4.	TRANSFORMERS:			
	Dry Type Transformer	1,000 nos	nil	TK
5.	SEMI CONDUCTORS:			
	VD MOS power transistors	20 m.pcs	nil	TK
6.	COMPUTERS AND ACCESSORIES:			
	Micro computer & accessories	20,000 sets		
	Computer Cables Addl.	4 million nos		
	Mouse Addl.	300,000 nos		
	Power Supply units	300,000 nos		
	Key Board Addl.	120,000 nos		
	Establishment of Hard Disk Service Centre	50,000 pcs		
	Software development	US$ 500,000	8.00	JV
7.	MAWEI SHIP REPAIR DOCK*			
	Major repairs	Docking Days 100		
		No.of ships 10		
	Medium size repairs	Docking Days 100		
		No. of ships 20		
	Minor repairs	Docking Days 125		
		No. of ships 25	8.12	LN
8.	MAWEI SHIP BUILDING YARD*			
	20,000 dwt ships	2		
	7,000 to 15,000 dwt ships	2	25.46	JV, LN

9. FUJIAN HYDRO-ELECTRIC EQUIPMENT WORKS*			
Hydro Turbine Generators	80,000 kw	3.73	JV, TK
(50 kw to 100,000 kw, existing capacity 120,000 kw; planned 200,000 kw)			LN/LS
10. NANPING FORKLIFT TRUCK GENERAL PLANT*			
Electric Forklifts	1,500 nos	7.71	JV,TK,LN
(Existing capacity 500 nos; proposed 2000 nos)			
11. SHUNCHANG PAPER MILL*			
Coated White Paper	10,900 tons		
Double Glued Paper	2,310 tons		
Glazed Paper	1,700 tons	12.00	JV, LN
12. KAOLIN PROCESSING*			
(FUJIAN PROVINCE MINXI KAOLIN COMPANY)			
Processed Kaolin:			
Paper grade	10,000 tons		
Porcelain grade	34,000 tons		
Refractory grade	10,000 tons		
Unprocessed Kaolin	60,000 tons		JV,LN
(Total mined quantity	320,000 tons)	18.03	EX
13. TRICOORDINATE MEASURING MACHINE*			
(JINGU PRECISION MACHINERY CORPORATION)			
Tricoordinate measuring machine	120 sets	7.40	JV,TK,EX
14. XIANGYOU GENERATOR GENERAL FACTORY*			
Brushless Generators	250,000 sets	6.00	JV
15. PUTIAN INTERNAL COMBUSTION ENGINE ACCESSORIES FACTORY*			
Brake shoes	9 m.pcs		
Brake system	105,000 sets		
Wrench.	105,000 sets		
Gears	1.2 m pcs		
Motor Engines	105,000 sets	5.23	JV, LN
16. FUJIAN NANPING CHEMICAL PLANT*			
Graphite Electrode	3,500 tons		
Graphite Positive Electrode	1,500 tons		
Graphite Carbon	500 tons	7.18	JV, LN
17. GRANITE PRECISION BLOCKS AND SLABS*			
Granite Precision basic blocks	2,400 sets		
Granite slabs	250,000 m^2	5.57	JV, EX

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18. MOTOR IGNITION SYSTEM*			
HV Resistance cord	1.0 m.setsx5		
High Power Ignition coil	0.8 m nos.	8.06	JV,TK,LN
19. CANNED NATURAL BEVERAGES*			
Vegetable and fruit juices	26,000 tons		
Tea	4,000 tons		
Mineral Water	10,000 tons		
Formed cans	200 million		
PVC bottles	20 million	12.52	JV,LN
20. XIAMEN PACKING FACTORY			
Corrugated Paper Board	6 million sqm	1.00	JV
21. LONGYAN PRECIPITATOR FACTORY			
Electrostatic Precipitator with HV silicon rectifier	540 sets		
Electrostatic Precipitator with LV power supply	500 sets		
Electric Precipitator for bag precipitator	64,500 tons		
Testing Instruments for Environment Protection	500 sets	1.80	JV, EX
22. NANPING PAPER MILL			
Waste water treatment Plant	20,000 tpd	5.00	LN/LS
Total		150.85	

* indicates projects for which Propspin studies are available on the accompanying diskettes.

4.3 PROMOTION OF THE PROJECTS

A very large number of industrial and other projects have been listed for foreign investment at provincial, prefectural and city / county levels. Pre-feasibility studies have been made for many of them. However, a precise methodology of their promotion among foreign investors including overseas Chinese compatriots is conspicuous by its absence. At a meeting with the Vice Governor of the Province, concern was expressed that apart from the periodical publication of lists of possible areas of co-operation not much is being done for a formal approach to investment processing. It was suggested that a few persons should receive training in investment promotion methodology and follow up at UNIDO, Vienna and various IPSs. It is strongly recommended that UNIDO considers the possibility of providing training to at least three officers of the Provincial Government who are responsible for initiation and implementation of promotional measures. Training is also needed in formulating and screening investment projects using UNIDO methodology including PROPSPIN. During this mission it had not been possible to provide any such training owing to time constraints.

5.COMMENTS ON INDIVIDUAL PROJECTS

5.1 NEW PROJECTS

5.1.1 BOPA NYLON FILM

BOPA Nylon films are special quality films required by the food and pharmaceutical packaging industries for their non-toxic, gas and low-temperature resistance and absence of static electricity. The estimated demand from Japan and USA has been put at 35,000 tons. Local packaging industries are also switching over to BOPA Nylon packing to attract foreign markets for their products. Local demand currently is about 7,500 tons. The Fuzhou No.2 Plastic factory which is at present manufacturing footwear including sports-shoes, flooring tiles and wall paper has been approved by the Provincial Government as the location for the manufacture of BOPA Nylon film. It is planned to establish facilities for the production of 3,000 tons of film per year. The following financial indications have been provided.

Total Investment 131.31 million RMB Yuan equivalent of US$ 23.88 million of which :

Cost of foreign equipment	US$ 12.20 million
Cost of local infrastructure equipment etc	US$ 5.45 million
Interest during Construction	US$ 0.78 million
Working Capital	US$ 5.45 million

The investment will be financed as under:

Foreign component by overseas investors	US$ 12.20 million
Local Component:	
Working Capital Loan from local Bank	US$ 5.45 million
Investment funds from Government, own resources and Local bank	US$ 6.23 million

Up to 30% of the total investment can be treated as equity and the balance as Loan. The actual distribution is subject to negotiation.

The following operating results are indicated for a year of full capacity operation.

Projected Sales	US$ 19.10 million
Estimated Costs of Production	US$ 15.27 million
Profit before taxe	US$ 3.83 million
Taxes	US$ 1.03 million
Net Profit	US$ 2.80 million
Return on Investment	11.72 % p.a
Pay Back period	4.5 years

5.1.2 ORIENTED STRAND BOARD FACTORY

With the expanding demand for quality furniture abroad and locally the Shunchang Timber Yard proposes to establish manufacturing facilities for Oriented Strand Boards from various kinds of locally available wood. The timber yard is currently engaged in logging and saw milling operations and in steam drying of the sawn timber. The yard is well equipped with rail and other log handling facilities for 500,000 cubic meters of material. The Yard being situate in the Zhun Chang county which is rich in many varieties of hard and soft wood and as the yard is already experienced in the material selection and procurement it is claimed that adequate supply of appropriate raw materials is assured. The current demand for OSB is put at more than 300,000 cubic meters per annum. The sole existing producer in China of this product, viz Nanjing Wood Works Factory produces 10,000 cubic meters of OSB for its own consumption in furniture making. The products of the proposed factory will therefore enjoy exclusive markets. Samples have been approved by potential overseas buyers from Germany and Hongkong, which is an indication of export possibility.

An Analysis using PROPSPIN computer software produced the following results.

FINANCIAL SUMMARY (CURRENCY: 000' DOLLARS)

Total Investment:	19,183
Internal Rate of Return	20 %
Payback Period:	7 Years
Breakeven Point:	37 % capacity utilization
Debt/Equity Ratio: (Initial):	66: 34
Return on Equity:	53% at Full Operation

OPERATIONS SUMMARY

	Year 3	Year 5
Capacity Utilization (product 1) %:	100	100
Total Sales:	11,275	11,275
of which exports:	5,375	5,375
Total Number of Persons Employed:	83	83

5.1.3 ETHYLENE PRODUCTS

The Products

The project aims at producing various ethylene based products by the establishment of facilities for cracking Naphtha and Light Diesel Oil. The following output is envisaged:

HPLD Polyethylene	100,000 tons
LLD/HD Polyethylene	100,000 tons
Ethylene Glycol	100,000 tons
P.S	60,000 tons
P.P	140,000 tons
A.B.S	150,000 tons

The estimated demand in China for the products at the end of year 2000 will be 8.5 million tons. The domestic production capacity by then will be 4.22 million tons registering a shortfall of 4.28 million tons. 50% of the proposed production will be ear-marked for local markets in order to raise the domestic supply to 7.47 million tons reserving the remaining 50% for export to earn the necessary foreign exchange to meet external financial obligations.

The project cost is estimated to be 10.814 billion yuan approximately equal to US$ 1,966 million as shown below:

	RMB Yuan	Eqv. US$	Local Currency m. US$	Foreign Currency m. US$
Major Equipment	5,183 m	942.36 m	292.36	650.00
Auxiliary Equipment	355 m	64.54 m }		
Utility Equipment	648 m	117.82 m }	32.54	192.00
Service Equipment	24 m	4.36 m }		
External Utilities	208 m	37.82 m }		
Land	70 m	12.73 m	12.73	
Buildings and other related costs	1,086 m	197.45 m	197.45	
Preliminary Expense incl. contingencies	1,490 m	270.91 m	270.91	
Interest during construction	1,235 m	224.55 m	77.55	147.00
Working Capital	515 m	93.64 m	43.64	50.00
Total Project Cost	10,814 m	1,966.18 m	927.18	1,039.00

The following financial arrangements are envisaged:(million US$)

	Local Currency	Foreign Currency	Total
Capital Stock	398.15	191.70	589.85
Loans	529.03	847.30	1,376.33
Total	927.18	1,039.00	- 1,966.18

Capital stock will be contributed by:

Local Currency:

Govt. sources	60.00 %	US$ 353.91 m
Public contribution	7.50 %	44.24 m

Foreign Currency:

Private Investment from Hongkong/ Taiwan confirmed by letters of intent	25.00 %	147.46 m
Foreign Investors	7.50 %	44.24 m

Borrowings are expected as:

Local Currency:

Public Bonds / Pooling Funds	US$ 165.39 m
Special Project Loan from China National Construction Bank	US$ 363.64 m

Foreign Currency:

Suppliers' Credit/ JV investment	847.30 m

A detailed Feasibility study is under preparation by Beijing Petrochemical Engineering Company and is expected to be ready soon. The following operating estimates are made subject to confirmation by the study.(For the 4th year of production)

Sale Value of Products US$ 902.00 m
Profit after income-tax US$ 177.27 m
Amount available for distribution of profits US$ 140.47 m, after setting off social levies and contributions.

Analysis by propspin however did not yield reliable figures in the absence of detailed breakdown of costs. The Propspin model may therefore be recast after the detailed figures are known.

5.1.4 MELAMINE FACTORY

Fujian Sanming Chemical Factory is a large integrated chemical complex with manufacturing facilities for Synthetic Ammonia, Urea, Calcium Carbide, and a multiple production plant for more than 20 kinds of general purpose chemicals. The value of fixed assets of the factory, which was founded in 1958 and steadily grew into its present size, is 240 million Yuan (approx US$ 44 million). Annual turnover exceeds 120 million Yuan with profits before taxes 40 million Yuan. The factory now plans to further process the urea and ammonia produced by it into melamine in order to earn more value addition. The present output of urea and ammonia is 240,000 tons and 210,000 tons p.a respectively. The new plant will use 37,200 tons of urea and 6,000 tons of ammonia to produce 12,000 tons of melamine. The total investment in additional facilities required will be 18.26 million US dollars, including a foreign currency component of US$ 11.70 million. The Yuan component of US$ 6.56 million will be provided by the sponsors and the government sources while the foreign exchange component is expected to be raised by way of joint venture contribution in the form of cash or equipment.

A Propspin analysis yielded the following results.

Total Investment:	US$ 18.260 million
Internal Rate of Return:	13 %
Payback Period:	7 Years.
Breakeven Point:	67 % Cap Utilization
Debt/Equity Ratio	64:36
Return on Equity:	29 % at Full Operation

OPERATIONS SUMMARY

	Year 3	Year 5
Capacity Utilization (product 1) %	80	100
Total Sales:	14,607	18,259
of which exports:	4032	5040
Total Number of Persons Employed	205	250

5.1.5 PRODUCTION OF BUTANEDIOL

Fujian Sanming Chemical Factory has been selected by the Central Government to produce Butanediol from the calcium carbide produced by the factory to meet the large market demand for this product. Current domestic demand is estimated at 13,000 tpy which is expected to grow at the rate of 20 % p.a. reaching about 25,000 tpy by 1995. The project will be import substitutive as the entire requirement is now being imported. However, it is proposed to export almost 50 % of the production in order to earn necessary foreign exchange to meet the debt-servicing obligation arising out of the project investment. The project aims at producing 27,000 tons per year of butanediol. The total investment is estimated to be US$48.00 million. The following information has been extracted from a Propspin analysis.

FINANCIAL SUMMARY

Internal Rate of Return	27 %
Payback Period:	6 Years
Breakeven Point:	45 % Cap Utilization
Debt/Equity Ratio:	(Initial): 71 : 29
Return on Equity:	102% at Full Operation

OPERATIONS SUMMARY (million US$)	Year 3	Year 5
Capacity Utilization (product 1) %:	70	100
Total Sales:	38,266	54,666
of which exports:	13,608	19,440
Total Number of Persons Employed:	56	75

The factory now produces 105,000 tpy of calcium carbide which will be used to make ethylene which is the principal raw material. Production of formaldehyde is being raised from the present level of 15,000 tons to 40,000 tons. Hydrogen gas, the third raw material required can be recovered from the waste gases available from the ammonia gas plant in the factory. The sponsors are looking for an appropriate joint-venture both financial and technological.

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5.1.6 PVA FILM

Fujian Chemical Fibre and Chemical Factory produces 14,000 tpa of PVA. A new production facility is sought to be established to convert 25% of the PVA produced into PVA film which has a high value addition. There is no similar production in the country at the moment, the entire local demand being met by imports and by non-compatible substitute materials. The aggregate local demand for packing films is estimated to be more than 10,000 tons. However, price consideration would limit the local consumption to about 10 percent of this figure. It is, therefore, proposed to export about 2,000 tons p.a. to USA, Europe and Japan reserving 1,000 tons p.a. for local sale. New investment for the production and service facilities is estimated to cost US$ 15.032 million with a foreign exchange component of US$ 8.109 million. The sponsors seek joint venture arrangement with technological and financial involvement.

FINANCIAL SUMMARY

Internal Rate of Return	20 %
Payback Period:	6 Years
Breakeven Point:	36 % Cap Utilization
Debt/Equity Ratio:	(Initial): 93 : 7
Return on Equity:	249 % at Full Operation

OPERATIONS SUMMARY (million US$)	Year 3	Year 5
Capacity Utilization (product 1) %:	80	100
Total Sales:	7,920	9,900
of which exports:	5,544	6,930
Total Number of Persons Employed:	153	185

5.1.7 ARTIFICIAL SILK AND WOOLEN FABRICS

Sanming Printing and Dyeing Factory is engaged in the dyeing and printing of man-made fibre fabrics. The factory now intends to diversify into production of such fabrics which will be further processed and finished utilizing the new as well as the existing facilities and marketed. A project feasibility study is under preparation and is expected to be ready by September 1992. Meanwhile the following information has been furnished by the factory management.

The project is designed to manufacture 20 million metres of artificial silk and 10 million metres of artificial woolen fabrics per annum from Polyester Long Staple Microfibre Yarn, which is locally produced. Full production level will be reached in the third year after the commencement of operations. 40 % of the production will be exported as finish-ed fabrics to the already established markets in Africa, Latin America, USA and the East European countries. Exports will also be addressed to the countries in the Middle East and South and South-east Asia.

The indicated figure for the investment is US$ 71.289 million with a foreign exchange element of US$ 38.00 million for the import of machinery. However, it may be noted that part of the machinery could be procured or fabricated locally. More specific information will be available after the feasibility study is concluded. Preliminary results of an analysis using Propspin are as under.(before income tax)

FINANCIAL SUMMARY

Internal Rate of Return	41 %
Payback Period:	5 Years
Breakeven Point:	16 % Cap Utilization
Debt/Equity Ratio:	(Initial): 70 : 30
Return on Equity:	195 % at Full Operation

OPERATIONS SUMMARY (million US$)	Year 3	Year 5
Capacity Utilization (product 1) %:	25	100
Total Sales:	16,120	77,800
of which exports:	5,560	31,120
Total Number of Persons Employed:	279	680

5.1.8 ZHANG PING LINDOU CEMENT FACTORY

Longyan prefecture is rich in quality lime stone suitable for manufacture of portland cement. The project sponsored by the Zhang Ping Lindou Cement Factory aims at establishing a production line for 10,000 tons per day. Nanjing Cement Design Institute made a feasibility study in 1992. However, details of the study were not immediately available for review. The following analysis was obtained through Propspin based on the information provided by the project authorities for the purpose of making preliminary studies. Detailed information will be obtained from the institute and made available to any interested investor in due course.

Total fixed investments	US$ 39.49 million
Working capital	US$ 8.23 million
Total investment	US$ 47.72 million
Internal rate of return	77 %
Payback period	6 years
Breakeven point	34 %
Return on equity	195 %
Debt / Equity ratio (initial)	70:30

	year 5	year 7
Total Sales	US$ 77.00	128.34 million
Exports	US$ 54.68	91.14 million
Capacity operation	60 %	100 %
Employees	220	358

The project would need 4 to 5 years to establish, including prospecting of the quarry material. Full production will be reached in the 7th accounting year, i.e. the 3rd year of operation. Lime stone and crushed stone powder will be obtained from own quarries to be developed under the project. Only gypsum and iron ore will be bought from outside, local sources. Assumptions as to factory and administration overheads were made on a rule of thumb basis at 5% and 2.5% respectively of investment, i.e. US$ 8 and US$ 4 per ton of production. The analysis may be updated after the detailed figures are available.

5.1.9 FIBRE BOARD

Nanping prefecture being one of the richest areas in timber reserves also produces an enormous quantity of twigs and other lumber yard wastes. The Dazhou Timber Yard in Nanping has developed a project to produce fibre board from these waste materials generated during its logging and other operations. The board is made by a simple process involving drying and preparing the softwood waste, gluing, gathering and hot pressing. The resultant board is of a homogeneous structure and good mechanical properties. It is suitable for manufacture of furniture, decorative panels, casings for electrical and electronic equipment and as a building material. The project aims at establishing manufacturing facilities for 50,000 cubic metres of thin medium density fibre board per annum at a total cost of US$ 33.04 million. Although a feasibility study was made in 1990 information regarding overhead costs was not provided. Assumptions were made in this respect following the normal industry practice and the averaging method usually adopted in other projects in the country, to facilitate evaluation by PROPSPIN. Results of the screening are summarized below.

Total fixed investments	US$ 30.34 million
Working capital	US$ 2.70 million
Total investment	US$ 33.04 million
Internal rate of return	22 %
Payback period	6 years
Breakeven point	46 %
Debt / Equity ratio (initial)	78:22
Return on Equity	59 %

		year 3	year 5
Total Sales	US$	11.92	14.90 million
Exports	US$	8.68	10.85 million
Capacity operation		80 %	100 %
Employees		188	230

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5.1.10 GRANITE TILES

Fu Ding county in the Ningde prefecture is a mountainous area with an estimated 38.12 million cubic meters of granite deposits. The project aims at processing 5,000 cubic meters (80,000 sq.m) per year of the stones into tiles of 40 cm x 40 cm with a thickness of 1 and 2 cm.

A feasibility study prepared by the sponsors was screened through PROPSPIN and the following results obtained.

Total fixed investments	US$	2.85 million
Working capital	US$	0.70 million
Total investment	US$	3.55 million
Internal rate of return		21 %
Payback period		6 years
Breakeven point		56 %
Debt / Equity ratio (initial)		77:23
Return on Equity		99 % at full production

	year 3
Total Sales	US$ 3.36 million
Exports	US$ 2.18 million
Capacity operation	100 %
No. of employees	154

It is also proposed to produce tombstones for 100% export. This line of production is expected to be more remunerative as the major elements of cost viz raw materials, power and labour are low and the market price is as high as US$ 1,500 a set. A feasibility study is under preparation.

5.1.11 NANPING BATTERY FACTORY

The factory was established in 1954 for the production of torch cell batteries. Starting with R series the factory progressed into the manufacture of alkaline LR series. At present it is producing LR6 batteries under a joint venture with a Hongkong company. The present proposal is to establish a new line of production for LR3 batteries with a possibility to expand into LR1. The factory has already established export markets for its existing products and would therefore be able to export 70% of its new product. The product line envisages an investment of US$7.86 million with US$ 5.00 million for the production line equipment. The factory is interested in financial joint venture as the technology is already available in house. PROPSPIN analysis showed the following results.

Total fixed investments	US$ 6.77 million
Working capital	US$ 1.09 million
Total investment	US$ 7.86 million
Internal rate of return	52 %
Payback period	4 years
Breakeven point	36 %
Debt / Equity ratio (initial)	70:30
Return on Equity	200 % at full production

	year 3	year 5
Total Sales	US$ 9.24	9.72 million
Exports	US$ 2.40	2.98 million
Capacity operation	80 %	100 %
Employees	125	150

The project profitability will increase considerably if the local sale could be boosted as the export price is only 20 % of the domestic price. Export is considered necessary because of the need to earn foreign exchange for debt servicing and for part of the working capital. Another reason advanced is that the local market for alkaline batteries is yet to develop.

5.1.12 SHUNGCHANG CEMENT PLANT II

The Shungchang Cement plant was established in 1988 with a capacity of 2,000 tons p.d with the assistance from Australia. In 1991 the plant reached full capacity operation. The present project envisages establishing an identical plant as phase II. The total investment estimated is US$ 50 million. A feasibility study is under preparation. Preliminary figures provided during discussion with project authorities when analyzed by PROPSPIN yielded the following indications, which are expected to improve when the final figures are studied.

Total fixed investments	US$ 47.00 million
Working capital	US$ 3.00 million
Total investment	US$ 50.00 million
Internal rate of return	10 %
Payback period	9 years
Breakeven point	66 %
Debt / Equity ratio (initial)	70:30
Return on Equity	27 % at full production

		year 3	year 5
Total Sales	US$	16.18	26.97 million
Exports	US$	11.72	19.53 million
Capacity operation		60 %	100 %
Employees		188	300

5.1.13 HOMOGENIZED CERAMIC TILES

The Fujian Province Building Materials General Company is engaged in the supervision of production and distribution of more than 20 building materials. The quality of a majority of ceramic tiles presently available in the market are said to be low and so the company, together with the Longyan Cement Factory, has decided to establish a modern factory to produce high quality ceramic tiles. Ten percent out of the proposed quantity of one million square meters will be processed into polished tiles which can fetch thrice the price for the ordinary tile.

No detailed study was available for review by the consultant. The data provided by the sponsors' representatives was analyzed using PROPSPIN on a gross basis. The following indications were obtained.

Total fixed investments	US$	7.00 million
Working capital	US$	1.00 million
Total investment	US$	8.00 million
Internal rate of return		45 %
Payback period		4 years
Breakeven point		27 %
Debt / Equity ratio (initial)		90:10
Return on Equity		735 % at full production
(High owing to very low equity base)		

	year 3	year 5
Total Sales	US$ 7.43	9.90 million
Exports	US$ 2.97	3.96 million
Capacity operation	80 %	100 %
Employees	173	210

5.1.14 OPTICAL FIBRE CABLE

The Nanping Cable Factory is the sole manufacturing unit in Fujian Province producing electrical cables and wires for transmission and distribution. The factory is now planning to diversify into optical fibre cables. It is proposed to set up the new factory in Xiamen. All the raw materials like optical fibre, PBTP and Jelly will have to be imported from Germany and Japan. The immediate consumption area is around or easily accessible from Xiamen. The plant will produce a total of 2,000 km of optical fibre cables per year in three specifications, GYTB 33, LXZ (4 to 12 cores) and GL23-1000. The total investment envisaged is US$4.1 million with a foreign exchange element of 1.52 million.

The project is offered for joint venture investment where the foreign partner will be expected to contribute the foreign currency component by way of equity or long term loan including suppliers' credit.

5.1.15 SOFT FOOD PACKING MATERIAL

The China National Packing Company and Fuan Printing factory jointly sponsored this project for the production of multi-layer packing materials for packing prepared foods. The present demand for the packing materials and other items that could be produced under the project is 13.2 million single ply sq.meters whereas the minimum capacity of a set of Japanese equipment proposed to be bought is 27.4 million single ply sq.meters accounting for 49 % of the capacity. The demand is expected to rise to 67 % in 5

years. Though the demand would continue to rise further on, the efficiency of the machine is said to drop after 5 years of full operation. As the equipment will not be fully utilized it is assumed that for the remaining part of the project life the machine would work at half the initial capacity.

An analysis by PROPSPIN showed the following results:

Total fixed investments	US$	2.15 million
Working capital	US$	0.63 million
Total investment	US$	2.78 million
Internal rate of return		35 %
Payback period		4 years
Breakeven point		26 %
Debt / Equity ratio (initial)		92:8
Return on Equity		100 % at full production

		year 3	year 5
Total Sales	US$	2.48	3.10 million
Capacity operation		53 %	66 %

5.1.16 PHOTO-VOLTAIC CELLS

Ningde prefecture is rich in polycrystalline silicon, the raw material for photovoltaic cells. The prefecture has decided to install facilities for the manufacture of 50 million pcs of solar energy cells per year. The area selected is free from air and water pollution and also from tremours and vibrations, both natural and traffic generated.

There are already a few enterprises in China producing similar products but with a low efficiency rate of about 8% in converting the solar energy into usable power. The state of art position having improved to an efficiency level above 15 %, the proposed unit should acquire technology of that level. The total estimated cost of equipment, including 16 crystal growers, and technology is around US$ 38.00 million. With an estimated value of buildings (US$ 2.00 million) and working capital (US$ 4.00 million) the total investment will be US$ 44.00 million. The first crystal grower will be installed in 16 months and production would commence within the next 3 months. The remaining growers will be commissioned in 15 months following. Gross estimates put annual sales at US$ 50.0 million and profits at 25% of sales. The domestic market can absorb upto 30% of production.

The prefecture is seeking foreign joint venture partners with proven technology at the state of art level. The sponsors have offered to provide free land for the establishment of the factory. Electricity being a critical item determining the cost of production, concessional rates will be allowed. The foreign partner will be expected to guarantee export market to the extent of 70% of the production. For sales effected by the foreign partner, out of the remaining 30%, a commission can be negotiated.

No feasibility study has been prepared for want of necessary technology information and relevant physical requirements. The prefecture therefore requests assistance in carrying out an independent study.

5.1.17 MEIZHO ISLAND DEVELOPMENT OF LEISURE INDUSTRY

Meizho is a small island in Meizhou Bay, 10 km long (North-south) and 2 km east-west at the widest part with an area of 14 square miles and a population of 33,000 inhabitants. It has a coast line of 32 kilometers and possesses 13 sand beaches.

The Meizhou Bay coast is a fast developing industrial area forming an important part of the Provincial development strategy. Some of the development taking place there are:

1. An oil refinery with 2.5 million tons per year capacity, in the southern coast of the bay, scheduled to commence operations by the middle of 1992.
2. A 300,000 tons Ethylene Products Project as a down stream processing activity following the refinery has been approved by the Provincial Economic Council.
3. An automobile reconditioning factory has been established in the north bank by the EKAVA Financial Corporation of Japan with an investment of 2.6 billion Japanese Yen.
4. Iron and Steel works with a capacity of 300,000 tpy and estimated investment of US$ 350 million will be established in collaboration with Philippines Iron Works Company. Construction work started on the 1st of June and is expected to take 2.5 years to complete.
5. The Polyester Fibre Factory with an installed capacity of 58,000 tpy and an investment of US$ 350 million will commence production on August 8, 1992.
6. A processing factory for 64,000 tpy of wheat sprouts for breweries in co-operation with Golda Corporation of Taiwan will soon begin construction (Investment US$ 15 million).

7. A proposal for constructing a thermal power station with in stalled generating capacity of 1.2 megawatts and investment of over US$ 500 million is under active consideration. An overseas chinese industrialist, Libo Corporation of Indonesia have offered to participate in investment.
8. There are two docks in the north bay each with a handling capacity of 3,000 tons, one of which is for container handling. There are two other docks each with handling capacity of 10,000 tons, thus making the total cargo handling capacity of 26,000 tons. A new US$ 120 million dock with a handling capacity of 35,000 tons will be set up by the Central Ministry of Communications. On the south bank there is a tanker berth of 100,000 tons. Further expansion of the docking facilities by an exclusive 50,000 tons facility for iron and steel factory's ore handling and another for 100,000 tons of coal under consideration.

The Meizho island derives its importance from these developments and economic activity taking place around it. It has been decided to maintain the island as a centre of leisure and recreation for the population in the meizhou bay coasts and tourists who will naturally flow into the area. The island has the unique recognition of being the birth place marine goddess Mazo and houses an elaborate temple dedicated to the deity. More than 130 million people in various parts of the world are said to believe in Mazo. The believers include 14 million people in Taiwan accounting for some 70 % of its population. Annual pilgrim visits reach up to 800,000. With the easing of the relations with Taiwan and the recent opening up of the coastal Fujian to the outside world more visitors are expected. The number will also increase with the developments taking place in the Meizhou Bay. The number of visitors are expected to exceed one million before 1995.

The island's administration has drawn up comprehensive plans to develop the island as a prominent leisure industry centre. Since 1988 about US$ 11 million has been spent in improving the infrastructural facilities. The present water supply capacity stands at 3,000 tons per day. 10,000 KVA electricity is made available through sea-bed cable from the main land; an additional load of 35,000 KVA is being planned. Tele-communication links with IDD facilities have been established.

Under a master plan, the following 18 different development projects have been drawn up and are offered for foreign investment, exclusively or jointly with chinese partners.

Slno.	Description	Basic Investment million US$
1.	Hay Shi Park	18.18
2.	Trekking Complex	5.45
3.	Mazhou Temple Complex	Already developed by the administrn.
4.	Sea Bridge	54.55
5.	Marine drive	14.55
6.	Fresh water lake and Botanic Park	12.73
7.	Picnic spot at Special Heaven Cave	10.91
8.	Development of Lian Ci Beach as Resort	18.18
9.	Lovers' Island, with chalets (Triangular Peninsula)	32.73
10 & 11.	A 2.5 km, 100 m wide mall with a central plaza.	27.27
12.	Golf Course 1.2 sq.km	25.45
13.	Village Clubs/entertainment spots	27.27
14.	Sea sports/marine entertainment centre	18.18
15.	Villas	36.36
16.	Recreation area with miniature models of all scenic spots and pilgrim centres of China and Mazho temples of the world.	14.55
17.	Golden Coastal Line Beach development (This is a shark free beach)	20.00
18.	Handicrafts village, production and distribution units.	under preparation
	TOTAL	336.36

The locations of these projects are indicated on the attached map.

As of 31 May 1992, 28 enterprises had applied for allotment of land for development; the applications were under process. One of the interesting cases among them was that of Libo corporation of Indonesia, requesting for an area of 8 sqkm, more than 57 % of the island, for development over a ten year period with an initial investment of one billion Hongkong Dollars. The corporation has offered to undertake the following 5 projects in the first phase over a five year period.

1. North area Tourism facilities (Project no.2)
2. Sea Bridge (Project no.4)
3. Road around the city (project no.5)
4. Golf Course (Project no.12)
5. Villas in the South area (Project no.15)

A final decision on the request had not been taken on the date of the expert's visit to the island, 9 June 1992.

FUJIAN, CHINA

5.1.18 TAI MU TOURIST COMPLEX

Tai Mu mountain is situate 45 km south of Fu Ding town. Within an area of 60 sq.km there are 54 peaks, 24 caves, 10 specialty rocks, 9 fountain heads, 3 rivulets, 2 waterfalls and more than 360 unique and fascinatingly and naturally shaped rocks, which resemble to a great detail human animal and other familiar forms; the most famous being the man and woman rock, shrouded in mythological stories. Together they provide opportunities for light mountaineering, trekking and similar adventures and for relaxation.

Ta Yu mountain range has a number of islands in the sea facing the county and enjoy free port privileges. The mean distance from the islands to Taiwan is only 120 n.miles. The sea cost of the mainland and the island can also be developed into beach resorts.

The area has been declared one of the national tourist industry focuses. The Fu Ding county government has drawn up plans for development of the area into a first class tourist centre which contain the following sub projects.

1. Development of a guided mountaineering facility
2. Development of a guided trekking facility involving walking through caves, creeks and narrow gaps among the rocks.
3. Development of a nature cure system in the caves said to possess curative properties, which have been established by local experiences and which is being now subjected to scientific validation.
4. Establishment of summer resorts and tourist hotels both at Tai Mu and Fu Ding city.
5. A cable way winding through various scenic spots for aerial sight seeing.
6. Establishment of a mineral water bottling complex to tap the high quality natural mineral water resources.
7. Establishment of sea entertainment facilities in the island mountain group of Ta Yu.
8. Establishment of light and fish processing industries in the islands.
9. Development of beach resorts.

Detailed investment plans have not been drawn up and so the exact size and kind of investment is not immediately known. Nevertheless the county is very keen on receiving joint venture offers for the implementation of these programmes.

5.2 EXPANSION / MODERNIZATION PROJECTS

5.2.1 L-MALIC ACID

L-malic Acid is a natural organic Acid found in fruits and vegetables. Being the pre-curser of oxalacetic and pyruvic acids it plays an essential role in carbohydrate metabolism. L-malic acid is used in soft-drinks, foodstuffs, pharmaceuticals and toiletries like tooth pastes, mouth washers and in non-fatty cosmetic formulations. It is produced commercially by immobilization of micro-organisms producing fumarase. The output is said to correspond in its characteristics to the natural l-malic acid with over 99.5% purity. The Fuzhou Pharmaceutical Factory produces essentially four grades of the product,

a. Food processing grade, for wine, vinegar, emulsifier and stabilizer for alcohol, acid based fruit juices and soft drinks
b. Industry grade used in chemical synthesis, detergents,fluorochrome, acid washes and dyes.
c. Biochemical grade for use as a biochemical reagent and substratum for enzyme assay.
d. Chemical reagent grade for more sophisticated use in chemical synthesis etc.

Present production capacity for the product is 150 tons per year. The factory proposes to expand this to 1000 tpy in order to meet on-coming demands both from within and abroad. It is expected that 60% of the product could be exported. Evaluation of the project by Propspin yielded the following results.

FINANCIAL SUMMARY	
1. Total Investment:	US$ 6,381,000
2. Internal Rate of Return:	65%
3. Payback Period:	4 Years
4. Breakeven	13% Cap Utilization
5. Return on Equity:	59% at Full Operation
6. Return on Investment	59 %
7. Domestic Value added	US$ 4,594 million

OPERATIONS SUMMARY		Year 3	Year 5
1. Capacity Utilization (product 1) %:		100	100
2. Total Sales:	US$	7,109 m	7,109 m
of which exports:	US$	4200 m	4,200 m
3. Total Number of Persons Employed:		255	255
4. Investment per job created	US$	25,000	

FUJIAN, CHINA

Assistance Required

The Fujian Pharmaceutical factory has already established a production line for 150 tons of l-malic acid. It now desires to expand the same to 1,000 tpy. This would call for additional investment to the tune of 6.38 million US dollars. The factory seeks joint venture partnership, the foreign investor providing the required capital to acquire additional equipment, facilities and working capital. The newly established unit can be treated as a separate entity for the purpose of the Joint Venture though it will stay within the present premises and set up. The joint venture unit may utilise the existing facilities and utilities on a rental or subcontract basis in order not to duplicate them.

5.2.2 CEFAZOLIN SODIUM

Cefazolin Sodium is a broadspectrum blactam antibiotic with low toxicity. It is more stable than penicillin against acid or Blactamase produced by various kinds of bacteria and has already found wide clinical usage. The Fuzhou Antibiotic Factory in 1989 established facilities for the manufacture of 30 tons per year of Cefazolin Sodium (Cefazolin V, CP 90 corresponding to USP XXII) with Italian technical collaboration. After trial production it was discovered that the technology acquired by the factory was not appropriate. The problems encountered included unsteady production process resulting in non-homogenous output, uncompetitive raw materials and very low shelf life of the product. The product lost its clarity after storage of less than one year. The product line has already incurred a loss of about US$ 275,000 during 1991.

The factory is now looking for an advanced technology in order to produce international quality product. It would also like to look into the possibilities of producing Cefradine, Cefatryzone and other products of the same group using the available facilities. Other salient factors of the project are the following:

1. Investment already made in the production line include Fermentation equipment, Synthesis and Semi-synthesis equipment capable of producing up to 30 tons of finished product and

about 100 tons of CPC acid; 6 cooling towers of -15°C rating; 2 of -20°C rating all using ammonia; 2 units using liquid nitrogen cooling up to -60°C; US209B equipment for 100 class sterility; Crystallization plant and packing line for 40 million vials p.a. (Total value about US$ 9.00 million)

2. At the present quality level the product can sell in the local market at 3,500 RMB yuan equivalent of US$636 per kg.

3. The current demand for the product within the country is 50 tons/year and this is growing at the rate of 20% p.a. As such the whole production will be absorbed by the local market.

4. The demand is now being met by importation and the landed price is about US$ 600 per kg.

5. The principal raw materials so far used were corn starch for fermentation from local sources and dimethylchlorosilane and trimethylchlorosilane imported from Europe. Availability of corn starch is assured.

6. Waste disposal facilities already available at the factory are sufficient and no additional investment will be needed

7. 605 employees including 30 technical supervisory staff are available for this line of production.

The project was not subjected to analysis by Propspin as the detailed financial data has not been made available because the factory is interested in technical know-how and training only.

5.2.3 SPECIAL PURPOSE DIESEL GENERATORS

Fuzhou Generating Equipment Factory was established in 1955 and produces the following equipment.

1. 22 - 1000 kw Automatic Diesel Generating sets powered by Cummins engines (USA) and with brushless alternators (Petbow co. Ltd, UK).
2. 3 phase Induction Motor
3. 24-75 kw trailer power plants
4. Low noise power stations and
5. Sine wave test power source system.

The total production capacity is determined as 180,000 kw equivalent. The factory has launched a project to enhance the capacity to 600,000 kw and seeks new technology for the same. Cost of modernization is estimated to be around US$ 3.0 million including a foreign exchange element of US$ 1.5 million. Cost of technology, training and foreign financed equipment will be paid by an appropriate profit sharing arrangement or out of export earnings.

5.2.4 DRY TRANSFORMERS

Fuzhou Transformer Factory was established in 1958 and produces medium-mini sized transformers and special transformers with various capacities and voltages combination rating up to 31.5 MVA, 110 KV. It has established the necessary facilities for the manufacture of dry type transformers ranging between 250 ~ 6,300 KVA. However, production of dry transformers could not progress much for want of the appropriate technology. The factory now seeks technical co-operation in this line and to reorganize the existing facilities in order to manufacture

dry type transformers, 250 ~ 6,300 kva, 1,000 nos p.a.
csp type transformers, 5 kva ~ 250 kva 5,000 units p.a.
and oil immersed type 100 kva ~ 31 mva 2,000 sets p.a.

from the present operating capacity of 8,000 units p.a of oil immersed transformers, on a single shift basis. In order to earn necessary foreign exchange to pay for the cost of technology and other costs, some 20% of the production will be exported. The foreign partner can also have options to share profits or buy back part of the production in lieu of technology fees.

5.2.5 VDMOS POWER TRANSISTOR

Fujian Semiconductor Factory produces Integrated circuits (Ics) and transistors along with other more than 40 items required for various electronic equipment. The items include capacitors of medium and high power ratings for TV and acoustic equipment, semiconductor thermo module for refrigerators, energy saving lamps etc. A packing line for Ics and transistors was established in 1984. This was followed by an IC processing line in 1986.

In 1991 manufacturing facilities for 4" dia. 3 micron wafer (50,000 to 60,000 pcs per year) was installed at a cost of US$ 10 million. The required equipment was imported from USA at a cost of US$ 6.5 million. The facility is now undergoing test run.

The factory now desires to utilize this facility for manufacturing VDMOS power transistors of rating 20w, 40w, 75w and 150w. The local demand for these transistors is expected to grow very rapidly from the present level of 50 million pcs to 200 million by 1995. The present production capacity in the country is limited to one million pcs of 20w rating. The factory would produce 20 million pcs of higher rated transistors. As all the equipment is already installed no new investment is envisaged.

The factory is, therefore, looking for technology for the production of VDMOS power transistors under a technical joint-venture on profit sharing or fee basis. The share of the joint venture partner will be paid out of export earnings of the factory, not necessarily limited to the earnings out of this particular line.

5.2.6 FUJIAN ELECTRONIC COMPUTER CORPORATION

The corporation, known for its "Lark" brand computers nationwide, is a key enterprise of Fujian Province producing digital processing machines such as electronic computers, computer peripherals and calculators. The corporation is an economic entity integrating industrial manufacturing with scientific research and technical services. The following units work under its umbrella:

Fujian Electronic Computer Plant
Fujian Computer Periphery Plant
Fujian Electronic Computer Research Institute
Fujian Semi conductor Research Institute
Fujian Television Factory
Fujian Branch of the China Computer Technical Services Corporation
and Fujian branch of China Software Technology Corporation.

The network under the Fujian Electronic Computer Plant comprises the following production facilities:

FUJIAN, CHINA

-Electronic computer assembly plant with an annual capacity of 10,000 micro-computers of PC XT and AT, 80286, 80386 and 80486 compatibles.
-Pocket calculator production line with a capacity of 3 mill.pcs.
-Production line for 100,000 printers a year.
-Winchester disk production line for 60,000 pcs per annum.
-Audio tape unit with an annual capacity of 4 million.
-Printed circuit board production line for 120,000 boards.
-An integrated circuit line.
-Computer / Printer Cable making line for 6 million cable sets
-House assembly line for 300,000 units per year.
-Key board assembly unit for 180,000 pcs per annum and
-A software development unit.

The Plant has entered into several joint venture arrangements, some of which are mentioned below.

- Manufacture of calculators with Paizung Electronic co. Ltd, Hongkong
- Manufacture of educational computers with Fujian Electronic Import and Export Company, Fujian Semiconductor Factory and Minja Company of Hongkong.
- Production of Printed Circuit Boards with Fude PCB Company Ltd.

Some of its customers for softwares had been SAMING of Japan and MSU Company of the United Kingdom.

The corporation now wishes to consolidate its experience and expertise by undertaking an expansion programme in three phases.

Phase I. Expansion of production facilities for:

micro computers:	from 10,000 to 20,000 units
computer / printer cables	from 6 million to 10 million sets
House	from 300,000 to 600,000 units
keyboards	from 180,000 to 300,000 pcs and
adding a line	for 300,000 power supply units.

This exercise will call for investment in additional testing equipment particularly, Service mounting testing equipment. This, together with cost of adaptation of the results of the R&D department, is estimated to require an investment of US$ 5.0 million. Estimates based on the present level of profitability of the relevant production lines show that the new investment will generate an after tax profit of US$ 3.3 million per annum.

Phase II. Establishment of a Hard Disk Service Centre.

There are very few centres in the world which can service the hard disks and practically none on commercial lines. The winchester disks, the so called hard disks, from their very delicate nature are prone to easy damage and once damaged, are discarded as unserviceable. These damages can be effectively rectified by a judicious combination of technical human skill and electronic testing devises. In the developed countries where the disks are manufactured, and so damaged, cannot afford to such rectification owing to high man-power costs. This plant has the unique advantage of possessing necessary expertise and cheap technical manpower to be able to undertake the task of repairing the hard disks on a commercial scale. It is proposed to increase the repairing and testing facilities at home and to establish overseas collection centres for damaged disks. The investment required has been estimated to be around US$ 2 million. From the reports on the level of damages to the hard disks the plant expects to collect 15,000 disks locally and 35,000 from foreign countries each year. The plant expects to make approximately one million US dollars as profit before income tax on this account, as per the following calculation.

Purchase price of damaged units	US$ 4.00 each
Collection, Transport and insurance	2.00
Manpower, spares and supplies	10.00
Total cost per pc	16.00
Selling price of reconditioned unit	35.00
Surplus	19.00
Total surplus on 50,000 units	US$ 950,000

Phase III. Strengthening the Software production and development base.

The plant has already gained substantial expertise in development of custom made softwares and popular games by executing orders for various industrial as well as commercial clients. It is now proposed to strengthen the software base by :

-importing software production line
-establishing a software production shop
-establishing a software tape base and software development centres for micro computer software, CAD / CAM software and Net Work software

The investment in equipment and personnel training is estimated to be one million US dollars. It is expected that annual income of US$ 0.5 million could be generated from software sales.

The Corporation looks for interested investors, preferably with the necessary technical background, to form one or more joint ventures to realize the above three phases.

5.2.7 MAWEI SHIP YARD
AND
5.2.8 MAWEI SHIP REPAIR DOCK

As the most ancient ship building enterprise in China the Mawei Ship Yard has a long history starting from its founding in 1866. As witnessed by the still existing remnants of the earliest mechanical workshop at the ship yard site, the enterprise possessed sophisticated equipment and boasts to have a tradition of experienced shipbuilders.

In the recent past the shipyard has built a number of cargo carriers and barges of 5000T capacity. In 1986 it built in cooperation with IHC company of Holland a 2300 m^3 trailing suction hopper dredger suitable for dredging the so called 'iron hard silt'. Other jobs executed include coastal cargo vessels of 1000 and less DWT, 3000T oil tanker, 141 ft floating container cranes, pontoons, hydraulic splitting barge, 3000T deck cargo barge and 600 kw purse seiners and tugs for export to Malaysia, Singapore, Hongkong and Peru. The latest in the series is a 7,300T multi-purpose container vessel for a German client.

The ship repairing dock attached to the shipyard has service capability to handle ships with tonnage upto 2000T though it has occasionally handled large ships upto 25,000T.

The ship yard has undertaken two development programmes one to enhance the capacity of the shipyard to enable it build at least two ships every year of tonnage 20,000 DWT and two ships between 7,000 and 15,000 DWT; and the second to commensurately increase the repair handling capacity of the dry dock. The ship yard is interested in appropriate joint-venture arrangements for both the projects, either jointly or severally, with investors with advanced technologies in the field. The existing equipment of the shipyard are serviceable and only need to be supplemented by a few additional equipment to meet the higher quality standards

expected of the enhanced facility. A list of the presently available equipment and other facilities is attached to the project profile.

The projects were subjected to screening by PROPSPIN and the tentative results are as shown below.

	SHIPYARD:	DOCKYARD
Internal rate of return	19 %	17%
Payback period	8 years	7 years
Breakeven point	44 %	54%
Debt / Equity ratio (initial)	70:30	70:30

		year 6	year 9	year 3	year 5
Total Sales	US$	36.40 m	45.50 m	4.16 m	5.20 m
Exports	US$	32.80 m	41.00 m	1.81 m	2.27 m
Capacity operation		80 %	100 %	80 %	100 %
Employees		2,157	2,696	322	400

5.2.9 FUJIAN HYDRO-ELECTRIC EQUIPMENT WORKS

The factory produces complete range of equipment for small and medium sized generation of hydroelectric power. Generators produced fall into both Vertical shaft and Horizontal shaft categories with capacity ranges from 50 kw to 100,000 kw. The Factory has a production capacity of 6 units of 120,000 kw equivalent. The products are generally sold in the local market; but they have also been exported to Equatorial Guinea, Malaysia and other South and Southeast Asian countries from where substantial demand is forthcoming. It is proposed to expand the capacity to 200,000 kw. with an additional investment of US$2.725 million. The modernization programme includes

- -establishment of a new welding workshop with advanced tech nology so as to centralize the work which is being done on shop-floors.
- -establishment of an upgraded test station for generators and motors with digital control systems.
- -introduction of CAD system for designing
- -improvement to utility services and a few additional equipment.

Gross value of existing equipment is around US$ 4.00 million and the current depreciated value is taken as US$ 1.00 for calculation purposes. PROPSPIN analysis yielded the following results.

Internal rate of return 29 %
Payback period 5 years
Breakeven point 70 %
Debt / Equity ratio (initial) 52:48
Return on Equity 236 % on full production

		year 3	year 5
Total Sales	US$	14.53	18.16 million
Exports	US$	3.93	4.91 million
Capacity operation		80 %	100 %
Employees		1,590	1,922

5.2.10 NANPING FORKLIFT FACTORY

The factory was established to manufacture 10,000 pa farm tractors and allied implements. Later it diversified into manufacture of battery driven forklifts and trucks. Currently, with the technical know-how from Komatsu of Japan the factory is producing 500 units p.a of forklifts. With the on-going rapid industrial development, the demand is expected to go beyond 16,000 units p.a. as against the present level of 3,000. The factory has decided to enlarge the production of forklifts and dispense with that of the tractors. Total investment in the reorganized set up will be US$9.8 million including the existing facilities valued at US$ 5.3 million; the new investment being US$4.5 million. Analysis by Propspin showed the following:

Internal rate of return 16 %
Payback period 7 years
Breakeven point 69 %
Debt / Equity ratio (initial) 34:66
Return on Equity 30 % on full production

		year 3	year 5
Total Sales	US$	17.12	21.40 million
Exports	US$	7.23	9.04 million
Capacity operation		80 %	100 %
Employees		846	1,010

5.2.11 SHUNG CHANG PAPER MILL

This mill was established in 1958 with a capacity to produce 4,000 tons of pulp from reeds, 1,500 tons of glazed paper and 4,500 tons of paper bags. The new proposal is to acquire a modern set of equipment and to re-organize production as follows:

Existing Pulp Mill	4,000 tpy
New Pulp Mill	4,000 tpy
Chemical Recovery Plant	1,700 tpy of NaOH

Targeted Production :	Coated White Paper	10,900 tpy
	Double Glued Paper	2,310 tpy
	Glazed Paper	1,700 tpy

The total Project Investment is indicated to be US$ 15.18 million

(US$ '000s)

	Existing	Additional	Total
Land & Buildings	2,630	3,200	5,830
Plant & Machinery	1,000	6,450	7,450
Working Capital	1,000	900	1,900
Total	4,630	10,550	15,180

External financing for the additional investment of US$ 10.55 million is sought by offering the facilities for a joint venture. The amount can be raised partly by way of loans from local sources depending upon the amount brought in by the foreign partner as equity. The following capital structure is suggested. Nevertheless, the sponsors would accept the whole amount of 10.55 if put in by the foreign partner.

	Local input	Foreign input	Total
Equity	4,630		4,630
Loan	4,550	6,000	10,550
Total	9,130	6,000	15,180

Though the investment is sought in foreign currency, the equipment etc. will be procured from the local market as plant fabrication facilities are locally available within the Fujian Province.

Financial analysis of the Project yielded the following summary results.

Internal rate of return		13 %
Payback period		8 years
Breakeven point		64 %
Debt / Equity ratio (initial)		63:37
Return on Equity		30 % on full production
Total Sales	US$	12.00 million on full production
Employees		700

5.2.12 KAOLIN PROCESSING PLANT

Minxi Kaolin Company was established in 1984 to exploit the vast resources of high quality kaolin in the Longyan prefecture. The clay in the mines worked by the company, has the following composition :

Al_2O_3 18 - 20 %; SiO_2 70 - 72 %

which after processing improved to 36% and 48 % respectively. The iron content in the clay is around 0.39%. The processed kaolin has been found suitable for many industrial application such as in pharmaceuticals, paper, porcelain etc. The present clay handling capacity of the plant is 110,000 tons which yields 9,000 tons of processed clay (600 tons of paper grade, 6,000 tons of porcelain grade and the rest for other uses). The project aims at enhancing the washing capacity to 260,000 with the following yields.

Paper grade	10,000 tons
Refractory grade	10,000 tons
Porcelain grade	34,000 tons

60,000 tons could be sold as raw clay. The total clay handling capacity would be 320,000 tons. A feasibility study is under preparation. The tentative figures provided by the sponsors when analyzed using Propspin provided the following indicative figures, subject to confirmation by the study.

Investment	US$ 12.65 million
Internal rate of return	29 %
Payback period	6 years
Breakeven point	44 %
Debt / Equity ratio (initial)	70:30
Return on Equity	133 % on full production

		year 3	year 5
Capacity utilization		50%	100%
Total Sales	US$	5.537	10.121 million
Export		4.534	8.506 "
Employees		35	70

5.2.13 TRICOORDINATE MEASURING MACHINE

Jingu Precision Machinery Corporation is the only producer of this machine in China and uses imported critical components like Touch Trigger Probe (Reinshaw, UK), Linear Encoder (Germany) and Precision air filter (Japan). All other parts are locally made either at the works or in other local factories. The products have been well received within China and abroad. The Project aims at enhancing the capacity from the present 8 sets to 120 sets p.a. with an investment of US$ 7.4 million, largely to cater to the growing local demand. PROPSPIN analysis of the enlarged set up showed the following results:

Internal rate of return	25 %
Payback period	7 years
Breakeven point	55 %
Debt / Equity ratio (initial)	70:30
Return on Equity	113 % on full production

		year 3	year 5
Capacity utilization		30%	100%
Total Sales	US$	2.938	9.792 million
Export		576	1.920 "
Employees		148	400

5.2.14 BRUSHLESS GENERATORS

The Xianyou Generator General Factory is producing 250,000 brushless generator units for automobiles. Having reached the full capacity operation the factory now desires to establish a second parallel line of production. The data provided by the factory on the cost of production was inadequate and the consultant had to make certain assumptions particularly with regard to overhead expenses and rate of consumption of raw materials and utilities. In the absence of a feasibility study the figures and

assumptions were not rechecked. Subject to this limitation, the Propspin analysis returned the following indicators.

Total Investment	US$ 6.00 million
Internal rate of return	15 %
Payback period	7 years
Breakeven point	54 %
Debt / Equity ratio (initial)	50:50
Return on Equity	27 % on full production

		year 3	year 5	year 7	
Capacity utilization		30%	80%	100%	
Total Sales	US$	9.000	12.000	15.000	million
Export		1.080	1.440	1.800	"
Employees		432	556	680	

5.2.15 AUTOMOBILE (MOTOR) PARTS

The Putian Internal Combustion Engine Fitting Plant manufactures series of motor fittings such as brake shoes and hub covers for more than fifty types of domestic and foreign motorcycles and light motor vehicles. The factory has a well established export market. Facilities available include pressure casting and die making workshops. It is proposed to enhance the production capacity for brake shoes from the present 4 million pcs per year to 9 million. Enhanced production in the following fields is also envisaged.

Complete brake system	105,000 units
Wrenches	105,000 sets
Motor Engines	105,000 units
Gears	1.2 million

The factory will be relocated at a new plot. The estimated investment is US$ 5.23 million including US$ 1.00 million worth equipment already possessed by the factory. The total construction time will be 2 years and the existing factory will stop operations for about a year as soon as the new location is ready to receive equipment for erection. PROPSPIN analysis of the new set-up showed the following results.

Internal rate of return	44 %
Payback period	5 years
Breakeven point	27 %
Debt / Equity ratio (initial)	43:57
Return on Equity	122 % on full production

		year 3	year 5
Capacity utilization		50%	100%
Total Sales	US$	4.342	8.684 million
Export		0.469	1.338 "
Employees		400	700

5.2.16 GRAPHITE PRODUCTS

Nanping Chemical Factory has an old plant with a carbon production line. It is proposed to reorganize the plant with additional equipment and advanced fire working procedures such as pressing, roasting, impregnation, graphitisation etc. The modernized plant will have a production capacity of 5,000 tons of various graphite products such as:

graphite electrode	3,500 tpy
graphite positive electrode	1,500 tpy
graphite carbon	500 tpy.

The plant would need an additional investment of US$6.08 million. The value of the existing plant is not readily assessable and therefore ignored for analytical purposes. The PROPSPIN analysis provided the following figures.

Internal rate of return	13 %
Payback period	8 years
Breakeven point	71 %
Debt / Equity ratio (initial)	86:14
Return on Equity	65 % on full production

		year 3	year 5
Capacity utilization		80%	100%
Total Sales	US$	6.155	8.207 million
Export		4.774	6.365 "
Employees		251	320

5.2.17 GRANITE PROCESSING

Putian Jing Pu Precision Machinery Company has been processing granite for its own consumption as slabs and foundation/base for the tri-coordinate measuring equipment. The company now intends to diversify into granite slab manufacturing to fully utilize the granite resources and the trained manpower for greater value addition. The main products will be:

Precision Base Slab for measuring and copying instruments
Precision Elements other than base slab for such instruments and Polished granite slabs as a building material.

The plant has also undertaken an experimental production of granite artifacts by hand engraving and sketching. It is intended to institutionalize this activity.

Investment in the new set up will be US$5.57 million. The proposal when evaluated with PROPSPIN, yielded the following results.

Internal rate of return	18 %
Payback period	9 years
Breakeven point	51 %
Debt / Equity ratio (initial)	90:10
Return on Equity	96 % on full production

		year 3	year 5
Capacity utilization		80%	100%
Total Sales	US$	1.378	1.891 million
Export		0.780	1.080 "
Employees		150	200

5.2.18 MOTOR ELECTRONIC IGNITION SYSTEM

The Ming Dong Radio factory is producing ignition coils for various models of local and foreign cars, and motor cycles. It has a production capacity of 300,000 units p.a. The present project aims at producing technically advanced high power ignition coils (0.8 million units per year) and high voltage resistance cords (distributor cables, 1.0 million sets of 5 cords).

Both the products are new lines and require equipment as well as technology. The existing land and buildings will be used for the new lines of production and are valued at US$ 2.62 million. The new investment required is US$2.48 million for the purchase of a complete production line for the distributor cables, vacuum casting plant for hot and cold working liquid system, winding machines, dies and accessories, US$ 2.80 million for working capital and US$165,000 for addition to buildings. PROPSPIN analysis provided the following indicators.

Total Project cost	US$ 8.06 million	
Internal rate of return	28 %	
Payback period	6 years	
Breakeven point	49 %	
Debt / Equity ratio (initial)	55:45	
Return on Equity	76 % on full production	
	year 3	year 5
Capacity utilization	80%	100%
Total Sales US$	9.205	11.507 million
Export	2.320	2.900
Employees	333	400

5.2.19 NATURAL BEVERAGES

Fuan county in Ningde Prefecture is rich in fruits and vegetables. Fuan Min Dung Canned Food Corporation has been running a factory to produce 10,000 tons of canned fruit and vegetable juices since 1981. The corporation now intends to expand its capacity to 30,000 tpy and add a production line for bottling of mineral water. The proposed expansion would call for new investment to the tune of US$ 11.45 million and has a foreign exchange content of US$ 5.91 million. The equipment to be imported include a can making plant with a production rate of 500 cans per minute, a blow moulding machine for plastic bottles with a production rate of 1,500 bottles per minute and a filling and sealing machine with a speed of 500 bottles per minute at a total installed cost of US$ 4.08 million. Working capital required in foreign exchange is US$ 1.83 million. Including US$ 1.07 million being the value of existing assets, which will be used in the new set up, the project will cost US$ 12.52 million. PROPSPIN ANALYSIS of the project as expanded showed the following summary results:

FUJIAN, CHINA

Internal rate of return	61 %
Payback period	3 years
Breakeven point	51 %
Debt / Equity ratio (initial)	91:9

		year 3	year 5
Capacity utilization		90%	100%
Total Sales	US$	67.407	74.897 million
Export		15.349	17.054 "
Employees		92	98

5.2.30 XIAMEN PACKING FACTORY

The Xiamen Packing Factory was established in 1962 and has ever since been engaged in the manufacture of corrugated paper boxes. In 1985 the factory imported an automatic corrugated paper board production line from Italy and a double colour printing machine from Japan which form the present capacity of 16 million sqm per year. The factory now plans to import a production line together with a tricolor flute printing machine with the latest technology of the 1990s from USA in order to expand its capacity to 40 million sqm. p.a. The total investment envisaged is US$ 10.1 million and includes US$ 5.00 million for imported equipment as follows:

Land and site preparation	US$ 2.60 million
Buildings and civil works	0.17
Service facilities	0.73
Plant and machinery	5.50
Pre-production costs	0.10
Working Capital	1.00

The foreign participant is expected to contribute for the imported equipment and foreign element of working capital which together will be US$ 5.5 million.

Though a feasibility study was said to have been made it was not readily available for the consultant's review. As the data provided was inadequate, analysis by PROPSPIN was not attempted.

5.2.21 LONGYAN PRECIPITATOR FACTORY

This is one of the factories run by the Longyan Air Pollution Control Equipment Company. The factory was established in 1971. In 1986 the factory introduced production facilities for electrostatic precipitator in co-operation with General Electric Environmental Services Inc. (GEESI) of the USA. Arrangements with GEESI include joint bidding and designing. This is the only company in China using electrostatic technology for the production of precipitators and it enjoys 35-40 % share of the domestic market for pollution control equipment. The products have been exported to countries like Indonesia, Malaysia, Thailand, Philippines, Iran and Pakistan. The present range of major products and the expansion plans under the project are as under:

	Present level of Production p.a	Production level after expansion p.a
Electrostatic Precipitator with High Voltage Rectifier	300 sets	500 sets
Do with Low Voltage Power Supply Control Equipment	200 "	500 "
Electric Precipitator	500 sqM (1,500 tons)	1,500 sqM (4,500 tons)
Bag Precipitator	10,000 sqM (600 tons)	60,000 sqM (3,500 tons)
Testing Equipment	200 sets	500 sets

The total additional investment required for the expansion has been estimated as US$ 1.8 million as follows:

Design and Engineering	US$ 10,000
Building and Civil Works	390,000
Service Facilities/Housing	200,000
Plant and equipment	600,000
Working Capital	600,000

The equipment to be procured include CAD, design copy machine, Type C iron core, Power Saving Transformers, vehicles and some additional production equipment.

The factory is seeking financial Joint venture arrangements with an investment of 90 % of the additional funds required, viz US$ 1.62 million either in the form of equity or soft loans. The overseas partner will also be responsible for export marketing.

However, as the domestic demand is also substantial only 30% of the production will be exported in order to generate foreign currency necessary to meet debt service obligations.

Although a copy of the Feasibility has been provided to the consultant it was not possible to get it fully translated into English or to remodel the figures to suit the PROPSPIN requirements and therefore an analysis was not done.

5.2.22 WASTE WATER TREATMENT PLANT

Nanping Paper Mill has a production capacity of 200,000 tpy of pulp and paper, with the recent expansions carried out. The waste water treatment facility remains at the pre-expansion level. The Mill seeks assistance in the form of bilateral/multilateral grants or suppliers' credits at low interest rates to augment the treatment facilities. The following particulars have been provided by the mill.

Production	: 200,000 tpy	
Pollution Load	: a. Waste Water	33,070 t/d
	b. COD Cr	18,313 kg/d
	c. BOD5	10,775 kg/d
Sources of Pollution:	a. 150 t/d CTMP Plant	
	Waste water	: 8,160 tpd
	CODCr	: 1,215 kg/d
	BOD5	: 6,375 kg/d
	b. 300 t/d Bleaching Groundwood Mill	
	Waste water	: 2,910 tpd
	CODCr	: 840 kg/d
	c. 170 t/d Bleaching Kraft Pulp Mill	
	Waste water	: 22,000 tpd
	CODCr	: 16,258 kg/d
	BOD5	: 4,400 kg/d

Capacity of the existing plant	: 13,000 tpd of waste water
Additional capacity required	: 20,000 tpd of waste water
Estimated cost	: US$ 5.00 million

Process used and desired for the new one: Bio-treatment

Admissible Pollution Standard:

Waste water quantity:		240 m^3/T pulp
BOD5	:	7.2 kg/T pulp (30 mg/l)
CODCr	:	24 kg/T pulp (100 mg/l)
AOX	:	1.5 kg/T pulp (8 mg/l)

The existing plant has failed to reach these standards and as such would require necessary modifications and / or appropriate technology.

As the proposal does not fall within the purview of international commercial investment and also because adequate financial data has not been provided by the Mill a project profile has not been prepared for this proposal. However, the information may be passed on to any interested investor / supplier already registered with UNIDO Investment Centre(s).

6.0 CONCLUSIONS AND RECOMMENDATIONS

40 industrial development project proposals were selected out of the numerous items offered by the provincial authorities for overseas co-operation. The selection was restricted due to the fact that

a. Some of the proposals involved meager amounts of investment not likely to be of interest to foreign investors, perhaps with the exception of compatriots from Taiwan, Macao or else where.
b. Some of the proposals needed more time to collect the necessary physical and financial data to justify the project viability.
c. There was a time constraint on the physical number of proposals that could be processed.

The selected projects are recommended for promotion through UNIDO IPS Network.

Two Leisure industry complexes have been included in the portfolio. Each of the complexes contains several sub projects which may attract different foreign investors. Detailed studies may be needed on these sub projects in due course.

The proposals also include a project on the manufacture of Photo voltaic cells which involves acquisition of the latest technology on the subject and an investment of US$ 44 million. The proposal needs thorough study and detailed investigation before it can be implemented. Sufficient technical knowledge at the advanced level of the state of art is not immediately available within the the country. The project sponsors have requested for international assistance for conducting a feasibility study. It is recommended that UNIDO organizes the conduct of the study through a suitable agency with proven technical knowledge of the most advanced level.

As mentioned earlier a large number of proposals could not be processed during the mission for various reasons. Never-the-less a definite need exists for the further formulation and promotion of these projects. The ideal solution would be for the provincial government to establish its own facilities for the purpose. It is suggested that two or three officials of the provincial government be trained in project formulation and promotion methodology at UNIDO IPS for a period of 6 months each.

ANNEXURE I

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Project in the People's Republic of China

Job Description

Post title: Expert in investment project identification, formulation and screening.

Duration: 2 m/m

Date required: 15 January - 15 March 1992

Duty station: Fuzhou, and possibly with travel within the Fujian province.

Purpose of the consultancy: to support the Government, especially the Fujian local Government to expand the province's industrial production by identifying potentially viable industrial investment projects which require financial, technical, managerial or other resources for their implementation through any form of business-oriented industrial co-operation between national investors and suitable foreign partners. The identified investment projects will be subsequently promoted by UNIDO.

Duties: In close cooperation with the Fujian Commission of Foreign Economic Relations and Trade, Division of Foreign Investment Management, with the UNIDO Centre in Beijing and with the development banks and other related organizations/institutions. the consultant will undertake/assist in the identification, formulation and screening of investment projects and the assessment of their national and foreign investors.

Specifically the consultant will be expected to:

- conduct a brief sectoral study on manufacturing sector in the Fujian province, especially on agro-industry, petro-chemical and paper processing industry;
- review the proposals and studies on investment projects (new, expansion or rehabilitation projects) accepted or submitted by national/foreign investors from the private and public sector and, to the extent possible, assess their soundness from the economic, technological, marketing and financial points of view; the seriousness and qualifications of the investors, especially their capacity/willingness to invest; with a view to selecting those projects which are potentially suitable for promotion;
- formulate the selected investment projects by preparing project profiles according to the UNIDO (IID) format;
- to the extent that data is available, use the UNIDO PROPSPIN computer software to screen all selected investment projects;

- prepare a brief report setting out his findings and recommendations to the Government on further action or assistance which might be required in the field of identifying and promoting industrial investment projects and related matters such as investment climate improvement, creating or improving environment for expanding private sector activities, etc.

Qualifications: Industrial economist/business administrator with extensive experience in investment project identification, formulation and screening using computer software especially the UNIDO PROPSPIN, pre-investment studies, and preferably with familiarity of the region.

Language: English.

Background information:

During the visit to UNIDO Vienna on 21 October 1991, the Vice-Governor of Fujian province requested UNIDO's assistance in the mobilization of foreign investment resources for the Fujian Province, P.R. China. Selected sectors have been identified by the government and they expect investment projects could be identified and completed to be promoted by UNIDO network of IPSs and other focal points.

ANNEX · I

CHART OF PREFERENTIAL POLICIES FOR FOREIGN-INVESTED ENTERPRISES

CATEGORIES OF TAXES / AREAS					XIAMEN S. E. Z.	FUZHOU E. T. D. Z.	FUZHOU CITY PROPER	COASTAL ECONOMIC OPEN AREA (COUNTY SEATS, SATELLITE TOWNS)	OTHER AREAS
INCOME TAX	ENTERPRISE INCOME TAX	Foreign-invested enterprises engaged in production and research		Joint ventures	15%	15%	24%	24%	30%
				Cooperative and wholly-owned enterprises			20%—40% with an 80% discount		20—40%
		Enterprises engaged in energy, communications, port construction, and technology- or knowledge-intensive projects with overseas investment exceeding U. S. $ 30 million			15%	15%	15%	15%	15%
		Non-productive enterprises		Joint ventures	15%	30%	30%	30%	30%
				Cooperative and wholly-owned enterprises		20—40%	20—40%	20—40%	20—40%
		After the expiration of the period for tax exemption or reduction, export-oriented enterprises, whose exports in that year exceeds 70% of their total output value in the same year		Joint ventures	10%	10%	12%	12%	15%
				Cooperative and wholly-owned enterprises			Half of 80% discount of 20—40%		20—40% reduced to half
		The period for tax exemption or reduction (with the duration of business exceeding 10 years)	Productive enterprises	Joint ventures	Two years of exemption followed by three years of 50% reduction		Same as left	Same as left	Same as left
				Cooperative and wholly-owned enterprises	Two years of exemption followed by three years of 50% reduction		For undertakings in agriculture, forestry, and animal husbandry, one year of exemption followed by two years of reduction		
			Non-productive enterprises	Joint ventures	One year of exemption followed by two years of 50% reduction (with overseas investment exceeding US $ 5 million)	Two years of exemption followed by three years of 50% reduction	Same as left	Same as left	Same as left
				Cooperative and wholly-owned enterprises	/	/	/	/	/

INCOME TAX	LOCAL INCOME TAX		Technologically advanced enterprises	With the duration of business exceeding 10 years	Three years of exemption followed by six years of 50% eduction	Same as left
				With the duration of business under 10 years	Three years of 50% reduction	Same as left
		Ordinary foreign-invested enterprises		Joint ventures	For joint ventures, two years of exemption followed by six years of 50% reduction; for cooperative and wholly owned enterprises, three years of 50% reduction	
				Cooperative and wholly-owned enterprises	Same as left	Same as left
		Export-oriented and technologically-advanced enterprises			Exempted	Exempted
	INCOME TAX ON REMITTED ABROAD PROFITS	Joint ventures			Exempted	Exempted
		Export-oriented and technologically-advanced enterprises			Exempted	Exempted
		Enterprises engaged in energy, communications, port construction, and technology- or knowledge-intensive projects, with overseas investment exceeding US $ 30 million			Exempted	Exempted

Same as left	For joint ventures, two years of exemption followed by six years of 50% reduction; for cooperative and wholly owned enterprises, three years of 50% reduction			
Same as left	Same as left	Same as left	Same as left	Same as left
Exempted	Exempted	Exempted	Exempted for 5 years	10% of income tax
				10% of income
Exempted	Exempted	Exempted	Exempted	Exempted
Exempted	Exempted	10%	10%	10%
Exempted	Exempted	Exempted	Exempted	Exempted
Exempted	Exempted	Exempted	Exempted	Exempted

CUSTOMS DUTY AND INDUSTRIAL AND COMMERCIAL CONSOLIDATED TAX	The equipment and building materials for setting up the factory, the raw materials for manufacturing export products and the vehicles for production use imported by foreign-invested enterprises as part of their investment	Exempted	Exempted	Exempted	Exempted	Exempted for joint ventures, and wholly-owned enterprises, for cooperative enterprises, preferential terms will be offered for their imported equipment according to the nature of their business
	Reasonable number of vehicles (sedans and vans) and articles for office use imported for their own use by the foreign-invested enterprises within their total investment	Exempted	Exempted	Exempted	Exempted	
	Export products of the foreign-invested enterprises which should be levied with an export duty (except those restricted by the state)	Exempted (for those restricted by the state, only customs duty will be exempted)		Exempted		
	Household supplies and reasonable number of vehicles imported by foreign investors, technicians and employees for their own use	Exempted	Exempted	Exempted	Exempted	Exempted for Taiwan businesses
	Reasonable number of vehicles (sedans and vans) and articles for office use imported by the export-oriented and technologically-advanced enterprises within their total investment	Exempted	Exempted	Exempted	Exempted	Exempted
HOUSE PROPERTY TAX		The annual tax rate will be 1.2% calculated according to the book value of the house properties owned by the enterprises after deducting the depreciation funds				
VEHICLE LICENSE DUTY		The annual tax for each passenger vehicle varies from 160 to 300 RMB Yuan (160 for one with 7 or less seats, 240 for one with 8—40 seats, 320 for one with 40 or more seats); for cargo vehicles, 56 Yuan per tonnage per year calculated according to net tonnage. The tonnage dues of motor ships will be collected by the Customs, and the license duty will be exempted				

ANNEXURE III

Chapter I General Provisions

Article 1

The Regulations hereunder are formulated with a view to facilitating the implementation of the Law of the People's Republic of China on Joint Ventures Using Chinese and Foreign Investment (hereinafter referred to as the Law on Chinese-Foreign Joint Ventures).

Article 2

Joint ventures using Chinese and foreign investment (hereinafter referred to as joint ventures) established within China's territory in accordance with the Law on Chinese-Foreign Joint Ventures are Chinese legal persons and are subject to the jurisdiction and protection of Chinese law.

Article 3

Joint ventures established within China's territory shall be able to promote the development of China's economy and the raising of scientific and technological levels for the benefit of socialist modernization. Joint ventures permitted are mainly in the following industries:

(1) Energy development, the building material, chemical and metallurgical industries;
(2) Machine manufacturing, instrument and meter industries and offshore oil exploitation equipment manufacturing;
(3) Electronics and computer industries, and communication equipment manufacturing;
(4) Light, textile, foodstuffs, medicine, medical apparatus and packing industries;
(5) Agriculture, animal husbandry and fish breeding;
(6) Tourism and service trades.

Article 25
Each participant to a joint venture may contribute cash or buildings, premises, equipment or other materials, industrial property, know-how, right to the use of a site as investment, the value of which shall be ascertained. If the investment is in the form of buildings, premises, equipment or other materials, industrial property or know-how, the prices shall be ascertained through consultation by the parties to the joint venture on the basis of fairness and reasonableness, or evaluated by the third party agreed upon by parties to the joint venture.

Article 26
The foreign currency contributed by the foreign participant shall be converted into Renminbi according to the exchange rate announced by the State General Administration of Foreign Exchange Control of the People's Republic of China (hereinafter referred to as the State General Administration of Foreign Exchange Control) on the day of its submission or be cross exchanged into a predetermined foreign currency.

Should the cash Renminbi contributed by the Chinese participant be converted into foreign currency, it shall be converted according to the exchange rate announced by the State Administration of Foreign Exchange Control on the day of the submission of the funds.

Article 27
The machinery equipment and other materials contributed as investment by the foreign participant shall meet the following conditions:

(1) They are indispensable to the production of the joint venture;
(2) China is unable to manufacture them, or manufactures them only at too high a price, or their technical performance and time of availability cannot meet the demand;
(3) The price fixed shall not be higher than the current international market price for similar equipment or materials.

Article 28
The industrial property or know-how contributed by the foreign participant as investment shall meet one of the following conditions:

(1) Capable of manufacturing new products urgently needed in China or products suitable for export;
(2) Capable of improving markedly the performance quality of existing products and raising productivity;
(3) Capable of notable savings in raw materials, fuel or power.

Article 29
Foreign participants who contribute industrial property of know-how as investment shall present relevant documentation on the industrial property or know-how, including photocopies of the patent certificates or trademark registration certificates, statements of validity, their technical characteristics, practical value, the basis for calculating the price and the price agreement signed with the Chinese participants. All these shall serve as an annex to the contract.

Article 30
The machinery,equipment or other materials,industrial property or know-how contributed by foreign participants as investment shall be examined and approved by the department in charge of Chinese participant and then submitted to the examination and approval authority for approval.

Article 31
The parties to the joint venture shall pay in all the investment subscribed according to the time limit stipulated in the contract. Delay in payment or partial delay in payment will be subject to a payment of interest on arrears or a compensation for the loss as defined in the contract.

Article 32
After the investment is paid by the parties to the joint venture, a Chinese registered accountant shall verify it and provide a certificate of verification, in accordance with which the joint venture shall issue an investment certificate, which includes the following items: name of the joint venture, month and year of the establishment; names of the participants and amount contributed; date, month and year of contribution of the investment; and date, month and year of issuance of the investment certificate.

Chapter X Foreign Exchange Control

Article 73
All matters concerning foreign exchange for joint ventures shall be handled according to the Interim Regulations on Foreign Exchange Control of the People's Republic of China and relevant regulations.

Article 74
With the business license issued by the General Administration for Industry and Commerce of the People's Republic of China, a joint venture can open foreign exchange deposit accounts and Renminbi deposit accounts with the Bank of China, or some other banks designated. The bank handling the account of the joint venture exercises supervision of receipts and expenditures.

All foreign exchange income of a joint venture must be deposited in the foreign exchange deposit account in the bank where an account has been opened; all payments by the joint venture in foreign exchange are to be made from its foreign exchange deposit account. The deposit interest rate shall be set as announced by the Bank of China.

Article 75
A joint venture shall in general keep balance between its foreign exchange income and expenses. When a joint venture whose products are mainly sold on domestic market under its approved feasibility study report and contract has an unbalance of foreign exchange income and expenses, the unbalance shall be solved by the people's government of a relevant province, an autonomous region or a municipality directly under the central government or the department in charge under the State Council from their own foreign exchange reserves, if unable to be solved, it shall be solved through inclusion into plan after the examination and approval by the Ministry of Foreign Economic Relations and Trade together with the State Planning Commission of the People's Republic of China.

Article 76
A joint venture shall get permission from the General Administration of Foreign Exchange Control or one of its branches to open a foreign exchange deposit account with an overseas bank or one in Xianggang or Aomen, and report to the State General Administration of Foreign Exchange Control or one of its branches its foreign exchange receipts and expenditures, and provide account sheets.

Article 77
Sub-divisions set up by a joint venture in foreign countries or in Xianggang or Aomen shall open an account with the Bank of China wherever there is a branch. The sub-division shall submit its annual statement of assets and liabilities and annual profit report to the State General Administration of Foreign Exchange Control or one of its branches through the joint venture.

Article 78
A joint venture can apply to the Bank of China for foreign loans and Renminbi loans according to business needs and following the Provisional Regulations for Providing Loans to Joint Ventures Using Chinese and Foreign Investment by the Bank of China. Interest rates on loans to joint ventures are as announced by the Bank of China. A joint venture can also borrow foreign exchange as capital from banks abroad or in Xianggang or Aomen, but shall file a report with the State General Administration of Foreign Exchange Control or one of its branches.

Article 79
After foreign staff and workers and staff and workers from Xianggang and Aomen have paid income tax on their salaries and other legitimate incomes according to the law, they can apply to the Bank of China for permission to remit outside China all the remaining foreign exchange after deduction of their living expenses in China.

ANNEXURE IV

LIST OF PERSONS MET

A. Government:

At Beijing:

Mr. Guo Xianzhi,
Deputy Director, Department of International Relations, Ministry of Foreign Economic Relations and Trade.

At Fuzhou :

Mr. Chen Mingyi, Vice Governor, Fujian Province.
Mr. Chen Gui Zong, Deputy Secretary General, Director of General Office.
Mr. Chen Yong Ting, Vice Director, Fujian Planning Commission.
Mr. Wang Hengyu, Vice Director, Foreign Affairs Office, Fujian Provincial Peoples' Government and Vice President Fujian Peoples' Association for Friendship With Foreign Countries
Mr. Deng Benyuan, Secretary
Mr. Yu Guanglu, Deputy Director, Foreign Affairs Office
Mr. Wang Xue Ding, Deputy Director, Fujian Provincial Light Industry Bureau.
Mr. Wang Shi Fei, Deputy Director, Fujian Economic Commission
Mr. Li Beng Sheng, Deputy Chief Engineer, Foreign Investment Managing Department, Fujian Provincial Commission of Foreign Relations and Trade.
Mr. Wu Kan Min, Deputy Director, Fujian Planning Commission
Mr. Yao Jiang Zhong, Deputy Section Chief, Fujian Planning Commission
Mr. Feng Ju Min, Engineer, Technique Transformation Department, Economic Commission of Fujian Province.
Ms. Tang Hui Qin, Foreign Investment Managing Dept. Fujian Provincial Commission of Foreign Economic Relations and Trade.
Mr. Ye Xiaoping, Deputy Section Chief, Fujian Foreign Affairs Office.
Ms. Wang Zhao Min, Foreign Investment Managing Department, Provincial Commission for Foreign Economic Relations and Trade.

At Nanping:

Mr. Xue Zhang Qing, Consultant to Nanping Prefecture, (President, Political Consultative Committee of Nanping Prefecture)
Mr. Liu Ji Wei, Director, Nanping Prefecture Foreign Affairs Office
Mr. Ye Bin, Deputy Director, Nanping Prefecture Foreign Economic Relations and Trade Commission
Mr. Lin Yi Gong, Deputy Director, Nanping Prefecture Planning Commission
Ms. Li Mei Zheng, Chief, Foreign Capital Department, Nanping Prefecture Planning Commission
Mr. Zhang Sheng Yong, Deputy Chief of Projects, Nanping Economic Commission
Mr. Lin Qui Bing, Deputy Chief, Technology Modernization Department, Nanping city's Economic Commission
Mr. Li Ping, Nanping Economic Relations
Mr. Huang Xian Qi, Section Chief, Nanping City Commission for Foreign Economic Relations
Mr. Li Mei Zhen, Deputy section chief, Nanping District Planning Committee
Mr. Yang Li Yan, Nanping Peoples' Association for Friendship with Foreign Countries
Mr. Lian Wu, Assistant Chief, Senior Engineer, First Institute of Project Planning and Research, Ministry of Machinery and Electronics, Bengbu, Anhui

At Shunchang:

Mr. Shi Lu Xi, Vice County magistrate
Mr. Zhong Yu Jian, Director, Foreign Economic trade Committee
Mr. Xu Wen Qing, Supervisor, Shunchang Economic Committee
Mr. Wang Shaolin, Section Chief, Planning Committee
Mr. Chen Hong Kang, Deputy Director, Forestry Department

At Sanming:

Mr. Hong Chang Ping, Deputy Mayor of Sanming City
Mr. Shi Ji Rong, Vice Director, Foreign Affairs Office, Sanming City Government.

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At Longyan:

Mr. Zhao Yi Rui, Assistant Commissioner,
Longyan Prefecture Administrative Office
Mr. Ma Wu Kuan, Director, The Economic and Technical
development Office of Longyan Prefecture
Mr. Chen Qin Lin, Dy. Director,
Longyan Prefecture Planning Commission
Mr. Zhen Zuojian, Deputy Director,
Longyan Prefecture Foreign Affairs Office
Mr. Chen Jeiping, Section Chief
Longyan Prefecture Foreign Affairs Office

At Xiamen:

Mr. Chen Xiang, Director, Foreign Affairs Office of
Xiamen Municipal Government
Mr. Huan Zhen Zhong, Deputy Director,
Xiamen Planning Commission
Mr. William Su,
Protocol Division, Xiamen Foreign Affairs Office

At Putian:

Mr. Fu Qiqing, Deputy Director, Heavy-duty machinery
Bureau, Putian City.
Mr. Lin Wenci, Section Chief, Economic Committee,
Putian City.
Mr. Guo Yong Jing, Section Chief, Planning Committee,
Putian.
Ms. Wang Yi Ting, Foreign Affairs Office, Putian.
Mr. Yang Chung Fong, Foreign Affairs Office, Putian.
Mr. Lin Qichan, Economic Committee of Xian You County

At Ningda:

Mr, Lin Ping, Vice Prefectural Commissioner
Mr. Shen Jiang Sheng, Vice Mayor, Ningde City
Mr. Liu Xin Hua, Vice Director, Ningde Economic
Research Centre
Mr. Ding Zhi Zu, Deputy Director, Light Industry Bureau
Mr. Zheng Long Shan, Vice Director, Industrial Bureau
Mr. Ye Mao Ao, Deputy Section Chief, Prefectural Bureau
of Industries
Mr. Zhuang Xing Jing, Senior Engineer, Prefectural
Economic Commission
Mr. Zhao Mou Xuan, Prefectural Foreign Affairs Office
Mr. You Qiang, Deputy Section Chief, Prefectural
Economic Commission
Mr. Zhong Qing Ping, Vice Mayor, Fuan City

Mr. Xie Zhao Kang, Director, Fuan Economic Commission
Mr. Xia Yinxi, Director, Fuan Economic Commission
Mr. Leu Jian Ying, Deputy Director, Fuan Economic Commission
Mr. Mou You, Fuan Economic Commission
Mr. Lin Xu Ming, Fuan Commission for Foreign Relations and Trade

At Fu Ding and Tai Mu:
Mr. Pan Dao Shang, County Vice Magistrate
Mr. Gong Qiu Sheng, County Vice Magistrate
Mr. Ding Yong, Director, Commission of Foreign Economic Relations and Trade of Fu Ding county
Mr. Qiu Xin Sheng, Director, Fu Ding Provincial Tourism Bureau and Tai Mu Mountain Scenery District Management Bureau
Mr. Wang Ri Gui, Section Chief, Fu Ding county office
Mr. Pan Ping Shun, Director, County Economic Committee
Mr. Fang Shou Run, Deputy Director, County Economic Committee
Mr. Bao Keming, Deputy Director, County Economic Committee

B. : Agency

UNIDO:
Vienna:
Ms. M. Subrato, Industrial Development Officer, IID
Mr. F. Svarc, Industrial Development Officer, IID
Ms. M. Cairo, Recruitment Officer, PPRAS

New Delhi:
Mr. M. Matiul Islam, UNIDO Country Director

Beijing:
Mr. Ian Davis, UNIDO Country Director
Mr. J. Nygard, UNIDO JPO
Mr. Liu Lianke, Director, UNIDO Centre
Mr. Ole Hybel-Hansen, Sr.Indl. Adviser, UNIDO Centre
Mr. Tahn-Yiel Kim, Economic Adviser, UNIDO Centre
Mr. Javier Serrado, Sr.Banking and Industrial Adviser, UNIDO Centre
Mr. Hsiao, Professional Officer, UNIDO Centre.

C. National Investors:

1. Fujian Ship Building Industry Corporation,
Gao Qiao Building, Wu Yi Road C, Fuzhou, Fujian
Mr. Lin Liang Ji, Business Manager
Mr. Zhen Zhi Yi, Engineer, Planning, Science and Technology
Mr. Wei En Ning, Engineer,Technical Improving department
Mr. Lin Chang Yan, General Economist

2. Fuzhou Pharmaceutical Factory,
Kiqi Cun, Fuzhou, Fujian
Mr. Tang Liang Zhong, Managing Director
Mr. Guo Wen Jing,Director and Dy.Secretary of the party Committee
Ms. Zhang Jia En, Director
Mr. Ren Chao, Deputy Director
Mr. Zeng Bao Zhen, Deputy Director

3. Fuzhou Transformer Factory,
Xindian Nanping Road, Fuzhou, Fujian
Mr. Wang Chuan Yao, Economist, Manager
Mr. Zhang Yu Pu, Director

4. Fuzhou Generating Equipment Factory
Industrial Road, Fuzhou, Fujian
Mr. Chen Guo Xiang, Superb Engineer, Director
Mr. Lin Zhao Ping, Deputy Director

5. Fuzhou Antibiotic Factory
Gong Ye Rd, Fuzhou,Fujian
Mr. Hu Fu Sheng, Vice Chief Engineer
Mr. Ruan Qi Tian, General Engineer

6. Fuzhou No.2 Plastic Factory
Gong Ye Road, Fuzhou, Fujian
Mr. Lin kai, Senior Engineer
Mr. Shen Miao-quan, Engineer

7. Fujian Semi-conductor Research Institute
(Factory no. 8430), Cenmen, Fuzhou, Fujian
Mr. Chen Yuan Den, Director
Mr. Huang Yi Xiang

8. Fujian Electronic Computer Corporation,
3, Jiao Tong Road, Fuzhou, Fujian
Mr. Lin Shan Min, Deputy General Manager
Mr. Qiu Zi Yi, Manager and Engineer
Mr. Li Qiping, Senior Engineer

9. Nanping General Forklift Plant
No.19, Xinjianyilu, Nanping, Fujian
Mr. Wang Hengrong, Director, Senior Economist
Mr. Chen Wen Shi, Vice Director, Senior Engineer
Mr. Lin Tian Xiang, Vice Director
Mr. Hu Yong Zhan, Chief Engineer
Ms. Liu De Qiu, Section Chief

10. Nanping Electrical Cable Factory
102, Gong Ye Road, Nanping, Fujian
Mr. Dai Zi Fu, Deputy Director, Senior Engineer

11. Fujian Xingguang Paper Industry Group Company
Nanping, Fujian
Mr. Wu Xiuhe, General Manager
(Director and Technical Leader, Nanping Paper Mill, General Manager, Nanping Paper Industry Engineering Company)

12. Nanping Paper Mill
Nanping, Fujian
Mr. Su Qian Sen, Vice Director
Mr. Lin Yi Ting, Chief Engineer

13. Fujian Nanping Nanfu Battery Co. Ltd
109, Industry Road, Nanping, Fujian
Mr. Chen Lai Mao, Deputy General Manager
Mr. Ding Xi Min, Deputy General manager

14. Nanping Electric Machinery Works
Nanping, Fujian
Mr. Yao Kang Ru, Director, Senior Engineer
Mr. Pan Hai Bin, Chief Engineer

15. Fibre Board Factory & Dazhou Timber Yard
Dazhou, Nanping, Fujian
Mr. Weng Jin Gui, Director

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16. Shungchang Timber Yard,
14, Zhongshan East road, Shungchang county, Fujian
Mr. Zang Guolian, Deputy Chief
Mr. Jiang Yong Wu, Technician

17. Shungchang Cement Plant,
Chengnan road, Shungchang county, Fujian
Mr. Zhang Yong Yan, Factory Director
Mr. Zheng Yuan Qing, Vice Chief Engineer
Mr. Peng Hua Tang, Engineer
Mr. Wang Shu Sheng, Section Chief
Mr. Chen Shui Miao, Section Chief, Finance

18. Shungchang Paper Mill,
Shungchang County, Fujian
Mr. Chen Zhen Peng, Deputy Factory Director
Mr. Liao Chang Hua, Deputy Director
Mr. Wang Lin Xiang, Section Chief

19. Sanming Chemical Factory,
Sanming, Fujian
Mr. Jiang Zhen Fa, Deputy Director
Mr. Yao Shun Guo, Deputy Director
Mr. Tie Lijian, Chief Economist
Mr. Lin Deqian, Chief Accountant

20. Sanming Fujian Printing and Dyeing Mill,
Shan Ying, Sanming, Fujian
Mr. Chen Ying Hong, Vice Director

21. Fujian Chemical Fibre and Chemical Factory,
Yongan, Fujian
Mr. Dai Guo Rong, Vice Director of Factory
Mr. Wu Ming Feng, Vice Director

22. Fujian Longyan Air Pollution Control Factory,
81, Lingyuan Rd, Longyan, Fujian
Mr. Chen Huan Qi, Director and Chief Engineer

23. Fujian Longyan Precipitator Factory,
Industry Road, Longyan, Fujian
Mr. Chen Lie Xin, Director

24. Engineering Survey Centre of Longyan Prefecture
Longyan, Fujian
Mr. Zhang Shao Yuan

25. Putian Jing Pu Precision Machinery Company,
80 Huan Cheng Road, Putian, Fujian
Ms. Zhen Sun-Ying, General Manager

26. Putian Combustion Engine Accessories Factory,
Putian.
Mr. Zhen Zuguo, Factory Director
Mr. Li Jinfang, Section Chief, Finance

27. Fujian Xian You Generator Plant,
Xian You County
Mr. Ye Yu Fang, Factory Director
Mr. Lin De Hong, Factory Engineer

28. Ming Dung Radio Factory,
Ningde
Mr. He Xinzhang, Director
Mr. Ye Bei, Vice Director
Mr. Huang Song Ji, Party Committee Secretary
Mr. Chen Si Zhi, Senior Engineer
Mr. Zhou Bixiong, Engineer
Mr. Yu Hong Ji, Engineer
Mr. Wang Shi Ta, Accountant

29. Fuan Printing Factory, Fuan
Mr. Chen Zhen Guo, Factory Director

30. Fuan Foundry, Fuan
Mr. Chen Chang Ping, Director

31. Fuhua Natural Beverage Co. Ltd,
10, Guancun West Road, Fuan
Mr. Lin Mei Kui, General Manager and Director

32. Fu Ding Gold Ocean Garment Co. Ltd.
Chen Guan Xin Da Jie, Fu Ding
Mr. Chen Jia Yan, Deputy Managing Director and
General Manager

33. Fu Ding Xian Wu Development Company,
Fu Ding
Mr. Zhou Qun Miu, Manager
Mr. Ozeng Yun Zong, Engineer/Economist

FUJIAN, CHINA

ANNEXURE V

SELECTED SOURCES OF INFORMATION:

China Economic aspects :
CHINA- Towards sustainable industrial growth, UNIDO
Fujian Province:
Fujian Today, Fujian Provincial Government
Updated with information from the representative of Fujian Planning Commission.
External Economic Co-operation Projects of Fujian Province, do
Nanping Prefecture:
A brief Introduction to Nanping Prefecture, Prefectural Government
A brief Introduction to the Projects of Nanping Prefecture for Foreign Investment, Vol I and II, do
Longyan Prefecture:
West Fujian, Prefectural Government
A guide for foreign investment in Longyan, do
Catalogue of Foreign Economic Co-operative Projects, in Longyan prefecture, do
Ningde:
Foreign Economic Co-operation programmes of Ningde Prefecture: Prefectural Government.
East Fujian, Taimu Mountain, do
Introduction to Projects of Foreign Economic Cooperation of Ningde Prefecture, do
Xiamen:
A Guide to Investment in Xiamen Special Economic Zone, Zonal Administration
Sanming:
Introduction to Sanming, Sanming municipality.
Regulations on leasing land to foreign Investors:
Trade and Investment no.29, Beijing

Others: 1. The law of the Peoples Republic of China on Joint Ventures using Chinese and Foreign Investment

2. China Machinery, 1990