



**TOGETHER**  
*for a sustainable future*

## OCCASION

This publication has been made available to the public on the occasion of the 50<sup>th</sup> anniversary of the United Nations Industrial Development Organisation.



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

## FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)

RESTRICTED

16262-E

DP/ID/SER.B/581  
7 April 1987  
ENGLISH  
Original: SPANISH

ASSISTANCE IN THE ESTABLISHMENT OF DOMESTIC  
INTERNATIONAL SUB-CONTRACTING EXCHANGES  
IN PERU

SI/PER/85/801/51-00  
PERU

Terminal Report\*

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

Based on the work of Agustin M. Balaña  
Industrial Promotion Expert

Backstopping officer: A.de Crombrughe, Institutional Infrastructure Branch

United Nations Industrial Development Organization  
Vienna

---

\* This document is a translation of an unedited original.

V.87-84006 (EX)

CONTENTS

	<u>Page</u>
<b>1. BACKGROUND .....</b>	<b>1</b>
<b>1.1 First National Seminar on Subcontracting of Industrial Processes .....</b>	<b>1</b>
<b>1.2 Mission by POPEX to Europe .....</b>	<b>2</b>
<b>1.3 Request for aid from UNIDO to establish a subcontracting Exchange at Lima .....</b>	<b>4</b>
<b>1.4 The Management Committee of the Lima Subcontracting Exchange (BSCL) .....</b>	<b>4</b>
<b>2. PROJECT SI/PER/81/801 .....</b>	<b>6</b>
<b>2.1 The expert's initial mission: definition of the strategy for setting up the Exchange .....</b>	<b>11</b>
<b>2.1.1 Analysis of the documentation produced .....</b>	<b>11</b>
<b>2.1.2 The situation with regard to the stage of advancement reached by the programme .....</b>	<b>12</b>
<b>2.1.3 Drafting of a general plan of activities: basic philosophy .....</b>	<b>12</b>
<b>2.1.4 Specific tasks performed .....</b>	<b>13</b>
<b>2.1.5 Conclusions and recommendations reached at the end of the first mission .....</b>	<b>17</b>
<b>2.2 The expert's second mission: developments prior to the compilation of data .....</b>	<b>17</b>
<b>2.2.1 Definition of the legal structure of the Exchange and drafting of its statutes .....</b>	<b>18</b>
<b>2.2.2 Staffing .....</b>	<b>20</b>
<b>2.2.3 Designing of publicity and other printed matter .....</b>	<b>20</b>
<b>2.2.4 Search for and selection and training of investigators ....</b>	<b>21</b>
<b>2.2.5 Designing of the Exchange's information system .....</b>	<b>22</b>
<b>2.2.6 Drafting of appropriate budgets .....</b>	<b>22</b>
<b>2.2.7 Conclusions and recommendations at the end of the second mission .....</b>	<b>23</b>
<b>2.3 The expert's third mission: establishment of the Lima Subcontracting Exchange .....</b>	<b>23</b>
<b>2.3.1 Creation of the Lima Subcontracting Exchange. Promoting institutions .....</b>	<b>23</b>
<b>2.3.2 The awareness-creating campaign directed towards subcontractors .....</b>	<b>24</b>

2.3.3	The work of investigation .....	25
2.3.4	The establishment of card index files .....	25
2.3.5	The permanent financing of the subcontracting exchanges ...	26
2.4	The expert's fourth mission: evaluation of results and new programmes .....	26
3.	PROJECT SI/PER/85/801 .....	28
3.1	Justification of the project .....	28
3.2	Request for technical assistance from UNIDO .....	28
3.3	Strategy followed for the development of the second project ...	29
3.4	The expert's first mission: definition of an overall strategy for the project .....	31
3.5	The expert's second mission: creation of the Arequipa Exchange	32
3.5.1	Parliamentary Bill for a Law on small industrial undertakings .....	34
3.5.2	Programme for promoting the export of subcontracting services .....	35
3.5.3	Creation of the Arequipa Subcontracting Exchange (BSCA) ....	36
3.5.4	Programme for promoting subcontracting in the Andean Pact countries .....	37
3.6	Fact-finding mission by the Lima Subcontracting Exchange to Europe .....	37
3.7	The expert's third mission: the promotion of international subcontracting .....	38
3.7.1	Promotion of subcontracting in the public sector .....	38
3.7.2	Beginning of operations at the Arequipa Subcontracting Exchange .....	39
3.7.3	Action in favour of setting up the Trujillo Subcontracting Exchange .....	41
3.7.4	Promotion of the export of subcontracting services from Peru .....	42
3.7.5	Participation in the annual meeting of the General Board of Associates of the Lima Exchange .....	45
3.7.6	Parliamentary Bill for a law on small industry and the financing of Subcontracting Exchanges .....	45
3.8	The expert's fourth mission: establishment of the Trujillo Subcontracting Exchange .....	46
3.8.1	Participation by Peruvian subcontractors in the Bogota Fair .....	47

3.8.2	Participation in MIDEST '86 .....	48
3.8.3	The results achieved by the Lima Exchange .....	49
3.8.4	The results achieved by the Arequipa Exchange .....	50
3.8.5	Establishment of the Trujillo Subcontracting Exchange .....	50
4.	CONCLUSIONS REACHED AT END OF THE PROJECT .....	55
4.1	General conclusions .....	55
4.2	Conclusions regarding the Lima Subcontracting Exchange .....	58
4.3	Conclusions regarding the Arequipa Subcontracting Exchange .....	60
4.4	Conclusions regarding the Trujillo Subcontracting Exchange .....	63
5.	RECOMMENDATIONS ON THE TERMINATION OF THE PROJECT .....	65
5.1	Recommendations of a general nature .....	65
5.2	Recommendations concerning the Lima Subcontracting Exchange .....	67
5.3	Recommendations concerning the Arequipa Subcontracting Exchange .....	70
5.4	Recommendations concerning the Trujillo Subcontracting Exchange .....	73

## 1. BACKGROUND

The Programme for the Promotion of Industrial Subcontracting in Peru is the outcome of the coordinated and joint efforts of the following five institutions:

Association of Small and Medium Industrialists of Peru (Asociación de Pequeños y Medianos Industriales del Perú - APEMIPE)  
Industrial Bank of Peru (Banco Industrial del Peru - BIP)  
Fund for the Promotion of Non-Traditional Exports (Fondo de Promoción de Exportaciones no Tradicionales - FOPEX)  
National Industrial Work Training Service (Servicio Nacional de Adiestramiento en Trabajo Industrial - SENATI)  
National Association of Industries (Sociedad Nacional de Industrias - SNI)

Before the institutions in question became jointly interested in the development of the project in question, a series of events took place which are discussed below and which help to explain more clearly how the Programme developed.

### 1.1 First National Seminar on Subcontracting of Industrial Processes

The First National Seminar on Subcontracting of Industrial Processes was held at Lima from 14 to 17 September 1981, on the initiative of the Industrial Bank of Peru, with the support of the Latin American Association of Financial Institutions for Development (Asociación Latinoamericana de Instituciones Financieras de Desarrollo (ALIDE), with technical assistance given by the Organization of American States (OAS)

The main aim of the promoters of the Seminar was to learn how subcontracting was organized in Spain and in Mexico, and thus to assess the advisability of developing a similar system of Subcontracting Exchanges in Peru.

The Seminar was designed on the basis of talks by experts, and workshops in which those attending the Seminar discussed the industrial situation in Peru and the background against which the exchange would have to be set up.

Mexico's experience was explained by:

Mr. Enrique Mora Soler, engineer, Director-General of Medium-Sized and Small Industry under the Secretariat for the National Heritage and Industrial Promotion (SEPAFIN), and

Mr. Alfonso Flores, Assistant Director-General for Research and Evaluation under the Directorate-General of Small and Medium Industry of SEPAFIN.

Spain's experience was explained by the person who works now as an expert of UNIDO in the Programme for the Promotion of Subcontracting in Peru.

Among the people present at the Seminar were representatives of the Institutions which are now promoting the Programme and who have held or hold positions as Directors or Managers in the Exchange of Lima.

As can be readily understood, the secondary objective of the Seminar was to stimulate interest among industrialists and institutions in the creation of Exchanges, assuming the procedures presented by the foreign experts were acceptable, and could be implemented in Peru.

The response from functionaries and industrialists to the First National Seminar on Subcontracting of Industrial Processes was massive. There was a strong representation at the Seminar of technical people from FOPEX, SENATI, Industrial Bank of Peru, the Junta of the Cartagena Agreement, the Ministry of Industry, Tourism and Integration and from other Institutions and bodies in the Administration. Similarly a strong management representation came from APEMIDE, and the National Society of Industry in Peru.

(A copy of the list of those attending is available at UNIDO)

The Conclusions and Recommendations from the different workshops created to analyse from different angles this subject of Subcontracting, clearly demonstrated the advantages of making this type of industrial promotion available to the industry of Peru.

(A copy of the Conclusions and Recommendations from the various workshops is available at UNIDO)

## 1.2 Mission by FOPEX to Europe

During the course of the Seminar referred to above, the expert who helped the Government of Peru in the development of the Programme and who, as was said, acted as presenter, had the opportunity of talking extensively to FOPEX personnel who were responsible for promoting exports in the mechanical engineering industry.

FOPEX considered that it was also necessary to organize the industrial subcontracting market in Peru, in order to be able to promote subsequently the export of similar services to other countries in the area, or in the American continent.

In order to understand in detail the European experience in this field, FOPEX had asked the European Economic Community (EEC) to finance a study mission, whose main objective was to visit the Subcontracting International Exhibition (MIDEST) and also Subcontracting Exchanges in some of the European countries. It must be said at this point, that MIDEST is the largest International Fair held in Europe specializing in Subcontracting. Although it was first held at the French town of Nancy, it is now held alternately at Lyon and Paris.

At the request of FOPEX, and taking advantage of the leisure time allowed by the seminar, the expert helped the technicians of FOPEX to plan a schedule of visits to Subcontracting Exchanges in France, Belgium and particularly Spain. In the case of Spain, the programme included a visit to the Exchanges of the Madrid, Bilbao and Barcelona Chambers of Commerce.

In Spain, and generally speaking in the rest of the countries of Western Europe, Subcontracting Exchanges tend to be services offered by Chambers of Commerce and Industry to undertakings in their region. Since the institutions tend to be public corporations, these services are mostly free of charge. The expenses involved in the creation and maintenance of the Exchanges are charged to the general budgets of the Chambers of Commerce. All this would appear to have little or nothing to do with the topic which concerns us; but it will soon be seen that it was of great interest when the time came for organizing subcontracting in Peru.

The mission to Europe promoted by FOPEX took place between 16 November and 2 December 1981. The following took part in the mission:

- Mr. Roberto Nesta, General Manager of FINA, S.A. and Director of the National Society of Industries.
- Mr. Luis Tenorio, Legal Adviser to the Mechanical Engineering Committee of the National Society of Industries.
- Mrs. Blanca Beteta, Publicity Officer for FOPEX, in charge of the mechanical engineering sector.
- Mr. José Miguel González, Assistant Commercial Manager of Metal Empresa, S.A.

(A copy of the report submitted by the mission on its arrival in Peru is available at UNIDO as a separate document in Spanish).

Both the visit to the Subcontracting Exchange of the official Chamber of Commerce, Industry and Navigation of Barcelona and the programme of work completed by the mission during its stay in Barcelona, were prepared by the technical personnel of the Department of Industrial and Technological Promotion of the Chamber of Commerce in question. On the first day, the mission visited the Department, where the opportunity was taken to explain the various programmes of work under way, and in particular the one relating to the promotion of industrial subcontracting.

During the first session, the members were told about the Chamber's motivation in promoting this type of service, with special emphasis on all matters relating to rationalization of investment in productive fixed assets; saturation of installed capacity; improvement in costs; relations between large, small and medium industry; and above all, improvements in industrial competitiveness both in the internal market and abroad.

At the second session, they were told about the programme designed to promote the export of subcontracting services from Spain to other European countries, particularly France and Germany.



A third session was designed to provide the members of the mission with the opportunity of exchanging views with subcontracting industrialists belonging to the Subcontracting Exchange of the Chamber of Commerce.

### 1.3 Request for aid from UNIDO to establish a Subcontracting Exchange at Lima

The conclusions of the First National Seminar on Industrial Contracting and the experiences of the members of the mission promoted by FOPEX to visit MIDEST and some of the Subcontracting Exchanges in Europe, resulted in various public and private institutions in Peru deciding to set up an Exchange in the city of Lima.

About that time, UNIDO had undertaken to provide technical assistance to FOPEX for the development of free zones in Peru. An initial study on the topic of free zones led FOPEX to reconsider the advisability of proceeding with the project in question, and it finally requested that the project be replaced by another designed to promote subcontracting, and more specifically to set up a Subcontracting Exchange at Lima. After studying the change requested by FOPEX, UNIDO decided that the new project requested would be valuable to Peru, and it approved the provision of technical support.

(A copy of the job description, and the objectives to be sought, is available at UNIDO).

### 1.4 The Management Committee of the Lima Subcontracting Exchange (BSCL)

The decision by the representatives of the Peruvian institutions interested in developing subcontracting in Peru was paralleled by the creation of a Management Committee for the purpose of initiating the work pending the granting of technical assistance by UNIDO. The institutions comprising the committee in question were:

Fund for the Promotion of Non-Traditional Exports (Fondo de Promoción de Exportaciones no Tradicionales - FOPEX)  
Industrial Bank of Peru (Banco Industrial del Perú - BIP)  
Association of Small and Medium Industrialists of Peru (Asociación de Pequeños y Medianos Industriales del Perú (APEMIPE)  
National Association of Industries (Sociedad Nacional de Industrias - SNI)

The persons entrusted with this task, and thus forming the membership of the Management Committee, were:

Mr. Bruno Barletti	Technical Manager, FOPEX
Mr. Alfredo Llano	Representative of SIP
Mr. Manuel Tejada	Representative of SENATI
Mr. Felipe Varela	President of APEMIPE
Mr. Luis Tenorio	Legal Adviser of SNI
Mr. Fernando Alvareda	Legal Adviser of MITI

The first action by the Management Committee was to draw up a study-report to be used subsequently as support for the Programme for the development of Subcontracting in Peru.

(A copy of the report in question is available at UNIDO as a separate document in Spanish)

Essentially, the contents of the report in question can be summed under the following four headings:

Identification of the problem;

Study of the functioning of an Exchange;

Study of the mechanical engineering industry in Peru;

Final report to the institutions.

The basic objective of the study in question was to serve as background for the preparation of a report which would subsequently be submitted to the various institutions involved in the establishment of a Subcontracting Exchange at Lima, with the idea that if it was approved, a start could be made on the tasks involved in setting up the Exchange.

## 2. PROJECT SI/PER/81/801

As mentioned already in section 1.3, FOPEX requested technical assistance from UNIDO for this project, the final result of which was to be the establishment of a Subcontracting Exchange at Lima.

The analysis of the document describing the work post (see the attached annex 5) indicated the functions to be carried out by the UNIDO expert on behalf of the Management Committee for the establishment of the Subcontracting Exchange at Lima. The functions in question were:

- A. To collaborate in drawing up an overall plan for the establishment of a Subcontracting Exchange in Peru;
- B. To help to determine the needs by way of personnel, equipment and financing;
- C. To give advice on the choice of mechanisms and the drafting of the documentation needed for collecting information;
- D. To introduce action designed to create a card index system for subcontractors and potential contractors;
- E. To collaborate in the task of defining the mechanics of operating the Exchange;
- F. To help with the training of counterpart personnel;
- G. To prepare and give lectures, seminars and round tables for industrialists or representatives of institutions likely to be involved in contracting;
- H. To analyse the prospects for exporting subcontracting services from Peru;
- I. To ascertain the possibility of forming joint ventures with undertakings geared towards international subcontracting;
- J. To direct FOPEX towards the policy to be followed in regard to participation in international subcontracting fairs.

By way of response to this series of events and others which did not appear to be self-explanatory, the expert prepared a work programme consisting of eight phases, to comprise the following tasks:

### Phase 1. Background

The outstanding aspects of this phase are:

- (a) The holding of the First National Seminar on Industrial Contracting, as mentioned in section 1.1 of this report, and the conclusions drawn from it.
- (b) The study mission to Europe organized by FOPEX and sponsored by EEC, which visited the MIDEST subcontracting fair, and also made contact with Subcontracting Exchanges in various European countries: Belgium, France and Spain. This topic is also mentioned under 1.2 above.

- (c) The request by FOPEX to UNIDO to provide technical assistance for setting up a Subcontracting Exchange at Lima.

This phase took place between September 1981 and March 1982. As already mentioned, the expert took part as spokesman of the National Seminar on Subcontracting of Industrial Processes, and subsequently welcomed the mission organized by FOPEX at the Barcelona Subcontracting Exchange, when he had the opportunity to present to the Peruvian visitors the subcontracting promotion programme of the Barcelona Exchange. There was no link between the expert and UNIDO as yet during this first phase.

#### Phase II. Prior study

This phase was developed in Peru by the Management Committee referred to under 1.4 above, and its main features were as follows:

- (a) Preparation of a basic study with a view to clarifying the advisability or otherwise of setting up a Subcontracting Exchange in Peru, to begin with the mechanical engineering sector;
- (b) Submission of the final report to the institutions linked to the project, indicating the advisability of setting up the Exchange in Peru.

The expert took no part whatever in this work, nor did he have anything to do with the conclusions and recommendations arising from it. The phase in question took place during the month of April and the first half of May 1982.

#### Phase III. Strategy to be followed in setting up the Exchange

This phase began on 19 May 1982 and ended on 4 June 1982. During this period the expert assisted the Management Committee, and in close cooperation with it prepared the work programme and defined the strategy to be followed for the creation of the future Lima Subcontracting Exchange and the others in the country.

The following tasks may be singled out among those performed during this phase:

- (a) Analysis of the documentation produced by the Management Committee or other persons or bodies connected with the promotion of subcontracting in Peru;
- (b) Verification of the state of advance of the work done by the Peruvian counterpart;
- (c) Preparation of a general plan of action, indicating the phases into which the project would be divided and the specific tasks/and operations to be carried out in each of the phases;
- (d) Performance of the following specific tasks relating to the phase

in question:

Analysis of the general economic background;

Geographical location and radius of action of the proposed Exchange;

Industrial subcontracting sectors to be considered during the first stage of the lifetime of the Exchange to be set up;

Points to be considered during the campaign for creating awareness and motivation, aimed both at industry and at Peruvian institutions;

Study of the institutions actually or potentially involved in the project;

Consideration and study of the various legal forms which could be given to the body to be set up;

Weighing and comparative analysis of advantages and drawbacks of the various options for financing the Exchange's budget;

Services to be provided by the Exchange, once it is set up;

Adoption of a schedule of subcontracting processes developed in the mechanical engineering sector;

Designing of questionnaires for compiling information;

Pre-selection of the future manager of the Exchange;

Decision as to staffing of the future Exchange;

Preparation of material for self-training in subcontracting techniques;

Miscellaneous.

- (e) Preparation of the specific tasks and operations to be carried out by the counterpart during Phase IV, in the absence of the expert;
- (f) Provision of documentation.

#### Phase IV. Operations prior to the compiling of information

This phase took place in the months of June, July and August 1982. The work during June and July was done or supervised by the Management Committee. It was agreed that the expert should provide assistance during August.

The most representative tasks during this phase were the following:

- (a) Preparation of lists of industrial undertakings which could potentially be contractors or subcontractors;
- (b) Listing of all the entrepreneur groupings that included among their members a significant number of industrialists;
- (c) Pre-selection of the technical team comprising the Manager, Technical Director, secretaries and investigators;

- (d) Self-training of the Management Committee in subcontracting techniques and Exchange management;
- (e) Development of a broad and intensive campaign to create awareness and motivation, directed basically towards subcontracting industries and institutions;
- (f) Preparation of promotional material (brochures and circulars) and forms for collecting information from industry;
- (g) Miscellaneous.

During the time when the expert was in Lima, the following activities were carried out:

- A. Analysis of the current status of the work mentioned previously and rectification in cases where there had been any deviation;
- B. Awareness-creating campaign directed at industries which could potentially act as contractors;
- C. Definitive designing of the information system of the Exchange;
- D. Design and preparation of index cards and files;
- E. Training of a manager of the Exchange, and joint study of the strategy designed;
- F. Selection, contracting and training of investigators in all matters relating to subcontracting techniques and management of exchanges;
- G. Design of the awareness-creating campaign to be launched prior to the inauguration of the Exchange;
- H. Preparation of the basic tasks and the specific operations which the counterpart would undertake in the course of Phase V, in the absence of the expert;
- I. Production of documentation.

#### Phase V. Compilation of data

In accordance with the programmed action time-table, this phase was carried out between September and December 1982. The expert was not present in Peru during this phase. The main activities were as follows:

- (a) The completion of inquiries by direct interview among both contractors and subcontractors;
- (b) Preparation of appropriate card index files, using the content of the questionnaires.
- (c) Creation of card index files for machinery, raw materials, processes, etc.;
- (d) Second visit to those industries whose questionnaires were found to be defective;

- (e) Development of the awareness-creating campaign, prior to the official inauguration of the Exchange;

#### Phase VI. Official inauguration of the Exchange

For this phase, it was thought desirable that the expert should be in Peru with a view to giving strong support at so vital a time. It was envisaged that the execution of this phase would take place during the month of January 1983.

The activities to be carried out were:

- (a) Analysis of the tasks carried out during the previous phase in the absence of the expert;
- (b) Preparation of the ceremonies to be held on the occasion of the inauguration;
- (c) Preparation of a manual on the functioning of the Exchange;
- (d) Initiation of operations and preparation of a series of adjustments which would need to be made in connection with the official inauguration and in the presence of the Presidents of the institutions and the Minister for Industry, Commerce, Tourism and Integration;
- (e) Preparation of the specific tasks and operations to be performed by the counterpart during Phase VII, in the absence of the expert;
- (f) Production of documentation.

#### Phase VII. First stage of functioning

From February 1983 until July of the same year, it was felt that the Exchange should be given an initial running-in period within the national market, providing services in a single sector of subcontracting activity, namely mechanical engineering. During this phase, both the Board of Directors and the technical team of the Exchange would have an opportunity to apply the lessons and knowledge imparted by the expert or acquired from other sources, with a view to coping with concrete cases of national subcontracting.

The outstanding tasks to be carried out during these six months were:

- (a) To make headway with the task of listing contractors and subcontractors. In the latter instance, special attention was to be paid to those involved in processes relating to the mechanical engineering catalogue chosen, where there were virtually no affiliated undertakings carrying out such processes;
- (b) To obtain orders for work, assignments or inquiries from contractors, special attention to be given to creating awareness in this direction among the State industries;

- (c) To carry out a rigorous follow-up to every operation, so as to ensure that none of them failed to materialise for lack of subcontractors;
- (d) To run in and make adjustments to the information system.

#### Phase VIII. Evaluation of results and introduction of new programmes

This phase, the last of the project, was scheduled to be carried out during the month of July or August 1983. If it were August, the expert would of course be present in Peru.

The work would be aimed mainly at:

- (a) Analysing the results achieved during the previous Phase VII, with a view to detecting mistakes, if any such had occurred, and proposing appropriate corrective action;
- (b) Preparing a plan for the expansion of the Exchange over the medium term, in other words extending the services to other subcontracting sectors such as plastics, rubber, wood, ready-made garments, etc.;
- (c) Promoting the setting up of other Subcontracting Exchanges in other industrialized centres in Peru such as Arequipa and Prujillo;
- (d) Arranging a plan of action designed to stimulate the export of subcontracting services from Peru to other countries in the Andean area or other parts of the American continent;
- (e) Miscellaneous.

With this work programme, covering approximately a year and a half, divided into phases and tasks as referred to already, it was planned to fulfil the requirements of Project SI/PER/81/801.

An account will now be given of the main activities carried out during each mission by the expert, and of the conclusions and recommendations formulated.

#### 2.1 The expert's initial mission: definition of the strategy for setting up the Exchange.

The strategy for setting up the Exchange, including the eight phases already described was defined, as stated previously, during the expert's first mission. This took place between 19 May and 4 June 1982. Among the most important tasks carried out during the two weeks of the mission, the following may be mentioned;

##### 2.1.1 Analysis of the documentation produced

This documentation referred to the study carried out by the technicians on the Management Committee and to the report arising therefrom. The basic



objective of this report was to provide the information needed by the institutions promoting the Exchange to enable them to decide on the following points:

- (a) The method of financing the Exchange, during both the implementation phase and the subsequent functioning phase;
- (b) The location to be chosen for the Exchange. Basically, the problem was to choose between installing it on the premises of one of the promoting institutions or providing separate premises;
- (c) The legal form it should take.

#### 2.1.2 The situation with regard to the stage of advancement reached by the programme

The expert wishes to place on record the high degree of advancement of the work carried out by the Management Committee between March 1982, when UNIDO was prevailed upon to approve the grant of technical assistance to FORSA, and the time of his initial mission.

It was as a result of this basic work and the strong motivation to achieve the objectives of the project on the part of the individual members of the Management Committee, that in the short time while the expert was in Lima it was possible to make considerable progress in regard to awareness-creating; contacts; motivation of industry; definition of the work plan to be carried out during the successive stages of the project; preparation of the tasks to be carried out by the counterpart during Phase IV, etc.

#### 2.1.3 Drafting of a general plan of activities: basic philosophy

The second operation carried out was the preparation of the plan in question, the details of which have already been outlined at the beginning of this section. The general philosophy of the programme was that the expert, by agreement with the counterpart, would prepare the work plan to be carried out within each phase. The expert would travel to Peru during those phases decided upon because of their complexity or as being strategic for the proper functioning of the project.

In principle, Phases III, IV, VI and VII were regarded as critical. During each of his missions, the expert carried out his work plan essentially on the basis of the following three types of activity:

- (a) Analysis of the work done by the counterpart during his absence and proposal of the necessary correctives or adjustments, in the event of distortions arising between what was planned and what actually happened;
- (b) Development, in conjunction with the counterpart, of such vital activities as would ensure the normal and satisfactory advancement of the project;
- (c) Preparation of the work plan to be carried out by the counterpart on his own account during the absence of the expert.

#### 2.1.4 Specific tasks performed

Among other concrete tasks, the following must be singled out:

**A. Analysis of general economic matters.** An analysis of the industrial and economic structure of Peru made it clear that:

- (a) Participation by industry in the GDP was approximately 25 per cent, providing employment to rather more than 12 per cent of workers;
- (b) Industry presented a high degree of concentration in those sectors where foreign capital was involved or where there were State enterprises;
- (c) The degree of interdependence between large, small and medium industries was very slight;
- (d) The degree of inclusion of Peruvian spare parts or components in consumer durables or capital goods marketed in Peru was very low. Peruvian industry depended largely on imported spare parts or components;
- (e) The Peruvian industries devoted to the manufacture of final products had a high degree of vertical integration which in some instances was close to self-sufficiency;
- (f) The level of utilization of installed capacity was very low, as was illustrated by the study carried out by the Management Committee.

**B. Geographical location and range of action of the Exchange.** The geographical zone covered by a Subcontracting Exchange varies according to the country or region concerned. To a large extent it depends on the density of industrial activity. An Exchange can provide services to a province, a region, a state or a country. This or that situation will depend, basically, on the way in which industry is distributed. With regard to the concrete case of Peru, it was evident that its industrial activity was grouped around three main centres;

Lima, with its area of influence basically in the central part of the country;

Arequipa, representing the pole of attraction for the entire southern zone;

Trujillo, which performs the same function in relation to the northern zone.

Within these three zones, the Lima-El Callao sector is by far the most important, since at the time when the project began, it accounted for 70 per cent of Peru's industry.

Because of this geographical distribution of industry, the expert recommended that over the medium term, three Subcontracting Exchanges be set up in the country:

One with headquarters at Lima, to cover the central zone;

A second with headquarters at Arequipa to cover the southern zone;

A third with headquarters at Trujillo, which would embrace the entire north of the country.

Because Lima-El Callao represents the most industrialized area in the country, the expert proposed that the Lima Exchange should be set up first.

**C. Industrial sectors to be considered during the first stage of the Exchange.** The mechanical engineering sector, including smelting and galvanoplastics, has come to be traditionally regarded as the one which provides the main opportunities for subcontracting.

The meetings held with entrepreneurs and representatives of industrial groupings corroborated this initial hypothesis in regard to the concrete case of Peru. Thus, the expert suggested that the Exchange should begin to provide services in this subcontracting sector, without prejudice to the possibility, following a running-in stage and beginning with Phase VIII, of expanding the services to cover other sectors such as plastics and rubber, ready-made garments, wood, etc.

**D. Points to be considered in the awareness-creating campaign.** As already mentioned in connection with the description of the various phases of the project, before compiling information in the subcontracting industry it was felt necessary to carry out a vigorous campaign to create awareness and motivation, directed at both industrial entrepreneurs and institutions. The basic aim was that subcontracting should be talked about in the largest possible number of communications media.

It was recommended that in preparing such a campaign, the following should be borne very much in mind:

- (a) The protagonists in subcontracting are two quite distinct types of industries: contracting and subcontracting;
- (b) A Subcontracting Exchange can only be developed and grow if both the contractors and the subcontractors are properly motivated and interested in the mechanism involved;
- (c) Subcontracting, apart from having advantages for both types of industries, benefits the industrial structure of the country by obviating unnecessary investment and making the industrial texture more dense and interrelated;
- (d) Both contractors and subcontractors tend to be grouped into associations of industrialists who are the essential intermediaries for the development of the kind of campaign to create awareness already referred to;
- (e) If the task of creating awareness among industrialists is to be effective, it is desirable that they should beforehand have

analysed the benefits of the system together with the technical representatives and the directing bodies of the associations concerned.

**E. Institutions involved or able to be involved in the project.** If subcontracting can be made to extend to virtually the whole range of industries, as has been said, it would be desirable to mobilize and secure the awareness and the participation of all the institutions combining or representing the interests of the industrialists of the country.

The Management Committee already represented a large sample of the groupings of industrialists in Peru; the expert nevertheless suggested that action should be taken to approach others, such as the Chamber of Manufacturers of Vehicle Spare Parts (CAFAP) or the Association of Exporters (ADEX).

**F. The legal status of the Exchange.** In most countries in the world where subcontracting is organized and where therefore there are Exchanges, there is a public or private body which includes among its tasks that of promoting industrial development. In such circumstances, Exchanges do not as a rule have legal personality of their own; they are usually specialized services operating within the framework of promotional activities carried out by the institution in question.

The European Subcontracting Exchanges are managed, generally speaking, by the Chambers of Commerce and Industry. In Italy, France, Spain and other countries these are public corporations, and in England and Germany they are private bodies. In the case of Peru, the Chambers are groups of tradesmen, and hence they do not promote activities directed towards industry. The industrialists are grouped into unions which reflect sectoral interests or the relative dimensions of the industries - large, small and medium.

Hence, since none of the existing institutions possessed in itself all the specific characteristics to incorporate the Exchange as just one more service, it was felt desirable to give it its own legal personality by creating a non-profit-making corporation under private law, with all the promoting institutions forming part of it.

**G. Financing structure.** The funds of the Exchange came from contributions by the associates and any donations it might receive from third parties. The annual operating budget was to be covered by contributions from the associates, who were at liberty to make them in goods or services or in cash.

At its ordinary annual general meeting, the General Board of Associates would analyse the operating budget and determine the contributions to be made by each institution, the total sum adding up to the entire needs for the financial period programmed. The General Board of Associates

would be made up of the presidents of the institutions promoting the Exchange.

During the first stage of its existence, the Exchange would not be in a position to generate any income, since it would not charge any fee or levy of any kind for its services. During the first few years of functioning, it was felt desirable that it should confine itself exclusively to the tasks of mediation, and not carry out any complementary activity of any kind.

**R. Scope and limits of the Exchange's activities.** Both in the course of the awareness-creating campaign and in the process of compiling information, as well as during the first phase of rendering services, it was felt advisable to make it clear that:

- (a) The principal objective of the Exchange is to place contractors in contact with subcontractors;
- (b) The Exchange renders a service only, and hence it does not suppress free competition or replace any of the parties in decision-making;
- (c) The services rendered by the Exchange are strictly technical, and hence it is no part of its business to engage in discussions or give opinions on prices, quality, delivery dates, safeguards or other commercial or financial matters;
- (d) The Exchange must make it quite clear to its contractor users that it does not guarantee the quality of the work carried out by subcontractors recommended or delivery dates for work done. It is a matter for the contractor's Supply Department to take precautions so as to ensure satisfactory results in this and other matters;
- (e) The Exchange must be impartial in carrying out its tasks. In the event of litigation, it must not take sides with any of the parties. The staff of the Exchange must at all times behave in an irreproachable way, professionally and morally. Provided it acts in this way, the Exchange is bound to earn itself a well-deserved reputation as being neutral, untainted, impartial and high-principled - conditions which are essential if its functioning as a service is to be consolidated;
- (f) The Exchange must not be confused with a supply or purchase department. In no circumstances must it try to take the place of these specialized departments of contractor undertakings; on the contrary, it must complement them and place itself at their disposal, supporting them in the task of seeking suitable subcontractors;
- (g) The Exchange must not try to justify its existence by promising to ensure the regular use of the idle productive capacity of its affiliates. The Exchange is not a commercial service which can make up for the commercial management shortcomings of industry. Nevertheless, it must carry out intensive action to obtain assignments, both within and outside the country, for the purpose of ensuring that subcontracting is more and more used and of making

its benefits more clearly evident;

- (h) It is important that the Exchange should ask the contractor for the names of the subcontractors with whom he had already been in contact, wherever an approach is made to him. This is the best way of avoiding loss of time and eliminating the possibility of giving names of subcontractors already known to have been found unsatisfactory by the contractor.
- (i) The Exchange must let the contractor know that, if the subcontractors selected are not found adequate to carry out the tasks asked of them, it is willing to continue to seek others.
- (j) The Exchange will endeavour at all times to give the names of several subcontractors for each consultation held. Although only one can carry out the work, three to five references will be given.
- (k) In performing its operations, the Exchange will endeavour not to be belligerent. It will not take a stand in favour of either the contractor or the subcontractor, since, as has been repeatedly said, an Exchange only makes sense where there is agreement between the two types of undertaking.

I. Adoption of a schedule of subcontracting techniques. As has already been said, the expert recommended that the work of the Exchange should be initiated by concentrating on a single sector which would be the ideal one to act as subcontractor. Mechanical engineering fulfils this condition. Once the existing possibilities were analysed, and in view of the need to adopt a schedule or catalogue of mechanical engineering processes, it was felt that the most suitable was that prepared by a group of experts from the European Economic Community (EEC). This would be used as a basis for compiling the various card index files constituting the Exchange's data bank.

#### 2.1.5 Conclusions and recommendations reached at the end of the first mission.

When his first mission came to an end, the expert formulated the conclusions and recommendations available at UNIDO as a separate document in Spanish.

#### 2.2 The expert's second mission: developments prior to the compilation of data.

This mission took place during the period 4 August to 5 September 1982. The most significant activities scheduled to be carried out during Phase IV of the project, which as will be recalled were to be undertaken by the counterpart in the absence of the expert, were as follows:

- (a) To prepare lists of undertakings which could potentially become subcontractors, so as to provide as extensive a group as possible of the mechanical engineering industries operating in the

- geographical area of Lima and the Province of El Callao.
- (b) To prepare lists of industrial undertakings with potential to become contractors, to which in due course the campaign for creating awareness and motivating to engage in subcontracting would be directed.
  - (c) To develop a vigorous institutional awareness-creating campaign directed basically at industrial groupings and government bodies, and aimed at illustrating the advantages of subcontracting for contractors and subcontractors, and for the industrial structure of the country.
  - (d) To launch an awareness-creating campaign directed at industries which could potentially become subcontractors, with a view to motivating them to become affiliated to the Exchange and thus facilitate the work of the promoters.
  - (e) To prepare publicity and promotional material, using as a basis the specimens from other exchanges supplied by the expert during his first mission.
  - (f) To collect ample data on prospective candidates for the post of Manager of the Exchange, covering both their academic training and professional or other experience which might be regarded by the Management Committee as of interest.
  - (g) To define the legal framework to be adopted by the Exchange; to prepare a budget for expenditure, and to meet it from the contributions made by the associates.

When the expert arrived in Peru to carry out his second mission, he found that the counterpart had been working on virtually all the above items, although none of them had been properly concluded. The difficulty was two-fold. On the one hand, the work programme entrusted by the expert to the Management Committee to be undertaken during his absence was fairly heavy, bearing in mind that the time available was barely two months. Furthermore, the Management Committee was made up, as already mentioned, of persons who had their own professional commitments with the various institutions promoting the Exchange. This meant that their efforts to further the project could only be part-time.

A wise decision taken by the Management Committee when it realized that the work programme was falling behind was to request SENATI (a request that was granted) to relieve Mr. Manuel Tejada of his duties with the IDIMPRO programme of SENATI and to allow him to devote his entire time to the work of setting up the Exchange. Thus Mr. Tejada took on the task of Technical Secretary of the Management Committee, with the result that the rate of progress of the work was greatly speeded up.

The most noteworthy tasks carried out while the expert was in Peru were:

**2.2.1 Definition of the legal structure of the Exchange and drafting of its statutes**

At a meeting of the Presidents of the institutions promoting the

Exchange, held during the first half of June, it was agreed that the most desirable legal status would be that of a non-profit-making corporation, in which all the institutions would participate as founder members.

At the same meeting of Presidents, the Industrial Bank of Peru was specifically entrusted with the preparation of a draft constitution for the Exchange, and a set of statutes.

The drafts submitted were studied at length during the expert's stay in Lima. First of all they were analysed and discussed by the Management Committee, and as soon as a sufficiently detailed text had been prepared it was submitted for analysis to the legal advisers of the various promoting institutions. The reason for this procedure was to be fully certain that all the steps involved in the establishment of the Exchange would be fully in keeping with the laws or supreme decrees governing the establishment of these institutions.

Thus the Exchange was given the official status of a non-profit-making corporation with the following governing bodies:

- (a) The General Board of Associates, represented by the Presidents of the five promoting institutions, namely:

FOPEX  
Industrial Bank of Peru  
SENATI  
National Association of Industries  
APEMIPE

The Ministry of Industry, Commerce, Tourism and Integration was unable to serve as a founder member because of legal difficulties as an organ of the Peruvian Administration. Subsequently, it joined the Exchange, once it had been set up, by means of an agreement.

- (b) The Board of Directors, to be made up of one director representing each of the promoting institutions. The Board of Directors is delegated by the General Board of Associates to carry out the managerial tasks needed for the proper functioning of the Exchange.

The Board of Directors is responsible for electing its Chairman from among the directors constituting it. Although the statutes say nothing on this subject, by tacit agreement of the Directors not representing groups of entrepreneurs, the posts both of Chairman and of Vice-Chairman of the Board of Directors of the Exchange are reserved for Directors representing the entrepreneurial sector.

- (c) The Manager and the technical and administrative team constituting the staff of the Exchange, who will be mentioned below, carry out the tasks laid down by the Board of Directors.



### 2.2.2. Staffing

From the time when it was first thought of, the Exchange has been a wide awake, imaginative mechanism. More specifically, the manning structure suggested by the expert was to be between three and five persons. The team finally decided upon consisted of four permanent officials. Their posts were as follows :

- (a) A Manager to be responsible for carrying out all policies emanating from the Board of Directors, and such managerial activities as might be necessary to attain the objectives laid down for the Exchange.
- (b) A Technical Director, with sole responsibility for keeping the card index files up to date; dealing with matters or assignments involving the Exchange; programming and controlling the work of the investigators, who will be mentioned further on; and such tasks as might be entrusted to him by the Manager.
- (c) An Executive Secretary, acting as secretary to the Manager and taking charge of the telephone, correspondence, filing, etc.
- (d) A second Secretary, acting as secretary to the Technical Director and basically concerned with the preparation of the index cards, the correspondence related to the fulfilment of assignments and the filing of questionnaires, assignment dossiers, etc.

While the four persons occupying the posts so described would constitute the regular staff of the Exchange, for the data compilation phase it was felt desirable to have between two and four investigators, who would be persons with a technical training and thus able to provide the Exchange with the information needed for completing the technical index files.

During the expert's mission, the Manager of the Exchange was appointed - Mr. Manuel Tejada, until then Technical Secretary of the Management Committee.

### 2.2.3 Designing of publicity and other printed matter.

As already mentioned, the counterpart was given the task of designing the specific material for motivating industrialists and making them aware of the benefits of subcontracting. Nevertheless, for the reasons explained under 2.2 above, by the time the expert arrived, the work had not yet been concluded. Taking the Peruvian situation into account, and using for reference the material used for the same purpose by other exchanges, by the end of the mission the following were already available:

- (a) An information trypitch summarizing the notion of subcontracting, the role of contractors and subcontractors, the purpose of the Exchange and the benefits of subcontracting for the contractor, the subcontractor and the country in general;

- (b) A questionnaire for use in the process of obtaining information from the subcontracting industries;
- (c) Designs of the various models of index cards to be used for the establishment of the information system, as discussed under 2.2.6 below.

#### 2.2.4 The search for and selection and training of investigators

Until such time as the card index files of the various sectors in which the Exchange would provide services were created, there was an obvious need for a team of people who would devote themselves exclusively to the task of obtaining information through direct visits to the subcontracting industries. It was felt that this task should be carried out by people with technical training and acquainted with the processes and machinery used by the mechanical engineering industries.

The qualifications required of an investigator pointed to an industrial or mechanical engineer having completed his/her studies during the year in question or in his/her last year. During the expert's mission, a campaign was started to find this type of person, and the response was extraordinary. The number of candidates was fairly large, so that it was decided to draw up a short-list. The selection procedure was carried out by the expert in the presence of the Manager of the Exchange.

As might be expected, the concept of subcontracting was completely unknown to all the candidates. Not only that, but many of the processes in the mechanical engineering schedule adopted by the Exchange had either not been studied or had been studied only superficially, or were already forgotten. For this reason, once the short-list of those considered most suitable had been drawn up, a short seminar was arranged, with the following objectives:

- (a) To acquaint the candidates with the basic concepts of subcontracting; what the term "exchange" implies; how Exchanges operate; what is their purpose and what advantages subcontracting offers to all those taking part in it.
- (b) To acquaint them with, or remind them of, the various mechanical engineering processes contained in the schedule, as well as the machinery used in each one of them and the parameters defining them.
- (c) To give them a thorough knowledge of the significance and usefulness of the various parts of the questionnaire, so that the compiling of information from the subcontracting industries would come as close as possible to meeting the objectives aimed at.
- (d) To give them a rough idea, but at the same time a clear idea, of the part played by each of the card index files in the functioning of the Exchange, and especially in handling subcontracting

assignments. The expert felt that this would serve to provide the investigators with an understanding and also a justification of the work they were to undertake.

### 2.2.5 Designing of the Exchange's information system

The information system used by the Exchange was based on a main system and secondary ones. The main information system, representing the backbone of the Exchange, consists of a series of card index files, including in particular:

- (a) A file identifying subcontractors and giving particulars of them;
- (b) A raw materials file;
- (c) A machinery and equipment file;
- (d) A processes file, by undertakings;
- (e) A products file;
- (f) A card index of subcontractors, by processes.

It is on the basis of this main information system that the Exchange carries out all its tasks as go-between. The secondary information systems have to do with the assignments handled by the Exchange, evaluation and follow-up of requests, and other activities.

In the course of this second mission by the expert, the mechanism underlying the functioning of this complex of information systems was designed, explained and simulated, and the opportunity was taken to undertake the training of the Manager of the Exchange.

### 2.2.6 The drafting of the appropriate budgets

To enable the Exchange to start work, three basic elements were needed:

- (a) A planned programme of work involving the various activities to be carried in each of the phases of the project. This has already been discussed in connection with the comments on the activities carried out by the expert during his first mission.
- (b) A manning table sufficient in numbers and adequate for the purposes intended. The election of the Manager and the selection and training of the investigators, as already mentioned, took place during the expert's second mission now under discussion.
- (c) The materials needed to make it possible, with the help of the human resources available, to carry out the programme of work drawn up. If instead of speaking of materials we speak of costs, we are talking about the operating budget. The expert spent a good deal of his time on this during his second mission.

The "materials" needed for carrying out the project, looked at from the cost angle, might be grouped under the following headings:

- (1) Wages and salaries of staff, including temporary staff;
- (2) Office materials, including furniture;
- (3) Printed matter and publicity literature;
- (4) Means of transport for investigators and fuel for their vehicles;
- (5) Premises and supplementary services (telephone, telex, etc.);
- (6) Miscellaneous.

A revised budget, covering the months of September to December 1982, amounted to a total of 22 million soles, a sum not covered during the first round of conversations held directly by the representatives of the institutions promoting the Exchange. Ultimately, in successive bilateral meetings with the expert, it was found possible to cover not only the budget for the rest of the year 1982 but also that for 1983. The figure for this budget amounted to 83 million soles.

#### 2.2.7 Conclusions and recommendations at the end of the second mission

At the end of the second mission, the expert formulated the conclusions and recommendations, available at UNIDO as a separate document in Spanish.

#### 2.3 The expert's third mission: establishment of the Lima Subcontracting Exchange

This mission took place between 1 and 18 February 1983. It was envisaged in the general programme of work designed to set up a Subcontracting Exchange in Peru (section 2 of this report) that in the course of Phase VI, during which the expert's third mission was to take place, the official inauguration of the Exchange would take place. The minor delays that piled up in the course of each of the preceding phases amounted to a fairly considerable volume. It was therefore, desirable that the work should be accelerated as much as possible, so that by the date envisaged for the completion of the project the most basic activities would be terminated.

The following are the most significant activities carried out during this phase:

##### 2.3.1 Creation of the Lima Subcontracting Exchange (BSCL). Promoting institutions

From the legal point of view, the Lima Exchange was constituted and came formally into being on 9 November 1982. In the end, it adopted the legal form of a non-profit-making corporation with the following as founder members:

**APEMIPE (Association of Small and Medium Industrialists of Peru)**  
**Industrial Bank of Peru**  
**FOPEX (Fund for the Promotion of Non-Traditional Exports)**  
**SENATI (National Industrial Work Training Service)**  
**National Association of Industries**

The ceremony establishing the Exchange took place in the office of the Ministry of Industry, Commerce, Tourism and Integration (MITI).

The General Board of Associates was made up of the following:

**Mrs. Rosa Gálvez, President of APEMIPE;**  
**Mr. Manuel Velarde Aspillaga, President of the Industrial Bank;**  
**Mr. Leslie Pierce Biaz-Cansaco, President of FOPEX;**  
**Mr. Juan V. Cabrerizo, President of SENATI;**  
**Mr. Ernesto Lanetta, President of the National Association of Industries.**

The Directing Council, or Board of Directors, was made up of the following:

**Mr. Felipe Varela Fernández-Concha, Director, APEMIPE;**  
**Mr. César Hernández Márquez, Director, Industrial Bank;**  
**Mr. Bruno Barletti Picone, Director, FOPEX;**  
**Mr. Lucio Castro, Director, SENATI;**  
**Mr. Mario Rodríguez Ríos, Director, Association of Industries.**

The chairmanship of the Exchange was entrusted to the Director representing the National Association of Industries, Mr. Mario Rodríguez Ríos. For the post of Manager of the Exchange, the Board designated Mr. Manuel Tejada Atalaya, who had previously held the post of Technical Secretary of the Management Committee.

### 2.3.2 The awareness-creating campaign directed towards subcontractors

Once the Lima Exchange had been established legally, and the material and human resources necessary for the fulfilment of the objectives had been placed at its disposal, the work of compiling information from the subcontracting industries was hurried forward, with the object of setting in motion the creation of the Exchange's card index files. Actually, investigations had been begun much earlier, so that in the course of the expert's mission, about 100 questionnaires were available from subcontracting industries, which made it possible to start the mediation operations at a moment's notice. The total number of subcontractors in the Lima and El Callao areas, both in the mechanical engineering sector and in other sectors, is undoubtedly much greater than 100. It was therefore felt advisable to concentrate on those industries which would be visited by the investigators during the succeeding months, so as to acquaint them with the objectives and benefits of subcontracting, the Exchange's functioning, and the way of joining the project. The awareness-creating campaign carried out was sufficiently broad in its scope and prolonged in time.

In order to transmit to industry the notions referred to above, recourse was had to the wholesale dispatch of circulars to this body of 1,000 selected undertakings. In the circular they were given information on the basic concepts underlying subcontracting, and the opportunity to become affiliated to the Exchange.

In addition to informing and motivating the subcontractors, it was thought desirable to make a start also on awareness-creating directed at contractors and technical staff in industry; and to this end, notices, articles and press releases were sent not only to the larger daily newspapers, but also to journals such as Industria Peruana, published by the National Association of Industries and popular with industrialists.

### 2.3.3 The work of investigation

As will be recalled, by the end of the expert's second mission, in other words by the end of August 1982, the investigators had already been selected. Within a short time, they were given a brief course on subcontracting, exchanges, and the processing of questionnaires, after which they began the task of compiling information. The team was made up of four investigators working under the guidance of the Technical Director of the Exchange.

The distribution of industry at Lima is very uneven, and public and private transport moves with difficulty because of traffic congestion. For this reason, the expert and the Exchange's technical team gave special attention to rationalizing the work of the investigators with a view to obtaining adequate productivity from them. To achieve this, the geographical area of Lima and El Callao was divided into zones, the industries were pinpointed within each zone, and itineraries were traced to make the best use of travel facilities, etc.

### 2.3.4 The establishment of card index files

Starting with the 100 or so subcontracting industries which had provided information for filling out the questionnaires, the task of setting up the basic tool of an Exchange, namely the various card index files, was begun. The first of these to be created was the processes file. It was no accident that this was so, since it is the easiest and the one most frequently used.

As progress was made with the processing of the questionnaires, it was found that there was continual repetition in certain types of processes (mechanized operations, etc.), whereas for others, not a single subcontractor was recorded. This type of situation enabled us to manoeuvre the investigations in such a way as to make them more selective, seeking to find out what subcontractors were carrying out processes where the Exchange had not hitherto managed to inventory a single one.

The second card index created was that of machinery, since in many inquiries the questions asked by the contractor were based not on the

mechanical engineering process in itself, but on the machinery capable of carrying it out and at the same time meeting the requirements as to dimensions, weight, etc., called for by a particular component.

By the end of the expert's mission, the card index files contained sufficient information to enable the contractors to be given guarantees in the event of the Exchange being inaugurated and starting its work.

### 2.3.5 The permanent financing of subcontracting exchanges

Under 2.1.4 G, we spoke of the financing structure of the Exchange, which, as may be recalled, consisted of contributions by the Associates in the form of goods, services or cash. This type of financing, which says much for the institutions promoting subcontracting in Peru, nevertheless involves a large discretionary element and an equally large dose of goodwill. Bearing in mind that there might be changes in both the boards of directors and the chairmanship of the institutions concerned, and to obviate the risk that their members might not feel the slightest interest in the topic, the expert suggested the need for some type of machinery which continuously and without any discretionary element would provide the minimum budget needed by the exchanges to be set up in the country.

Taking advantage of the fact that the Senate was discussing a parliamentary Bill concerning small enterprises, some of the Directors of the Lima Exchange, together with the expert, held a working session with the members of the Senate's Industry Commission, for the purpose of informing them concerning the importance of subcontracting and the need for ensuring the permanency of the Subcontracting Exchange as an instrument of support.

The reception given to the idea by the Commission was excellent, and the readiness to provide financing for the Exchanges was wholehearted; so much so that in that same meeting, one of the Directors of the Lima Exchange, who has a doctorate, was commissioned to draft the wording of a law covering these proposals. The articles of a law supporting and protecting subcontracting and subcontracting exchanges were drafted and accepted by the submitting authority, but the full text of the proposed law continued to be debated. By the time the expert had completed his mission, the text had still not been definitively approved.

The short-term financing of the Lima Exchange was reviewed once the Exchange had been legally constituted, and the statutory members of the Board of Directors were nominated by the institutions. In the course of a meeting of the Board of Directors held on 2 February 1983, a working budget for the Exchange was approved in the amount of 53,845,000 soles.

At the end of his third mission, the expert formulated the conclusions and recommendations, available at UNIDO as a separate document in Spanish.

### 2.4 The expert's fourth mission: evaluation of results and new programmes

As programmed at the outset, this last mission was to have taken place

during the month of July or August 1983. The goals which should have been achieved during that period are reflected in the description of Phase VIII of the project given in section 2 of this report.

Unexpectedly, the expert received a communication from UNIDO in Vienna thanking him for his collaboration and informing him that the project was regarded as completed.



### 3. PROJECT SI/PER/85/801

For reasons beyond the expert's ken, project SI/PER/81/801 was terminated without the series of activities indicated in the description of Phase VIII in section 2 of this report being carried out.

FOPEX, which as already stated, acted as counterpart in this project, considered it desirable that Exchanges should be set up in the other two industrialized poles of the country; Arequipa and Trujillo; and at the same time it received support for the designing of a programme for promoting the export of subcontracting services from Peru. On the basis of this and other objectives, FOPEX considered that a second part of the project should be carried out during which, provided support were forthcoming from a UNIDO expert over an adequate period, the goals still outstanding from the initial project would be achieved.

#### 3.1 Justification of the project

The development of a plan for promoting the export of subcontracting services from Peru required that adequate background information should be available on the subcontracting industry in Peru. It was considered desirable to set up other Exchanges in the genuinely industrialized centres of the country. But it should be remembered that the Lima Exchange had been set up specifically to initiate and consolidate the rendering of services in the mechanical engineering sector, although there are other sectors which likewise lend themselves to subcontracting. Among these, mention may be made of plastics, rubber, wood, ready-made garments, etc. Thus, it was felt desirable to expand the services of the Lima Exchange to these sectors.

Finally, it was felt to be essential to learn about foreign experience gained in the field of experts of subcontracting services, and to visit one or two international fairs of this type so as to be able to appreciate more clearly the importance of this type of service. These arguments, combined with the need to project the subcontracting industry in Peru towards foreign markets, induced FOPEX to make another request for help to UNIDO.

#### 3.2 Request for technical assistance from UNIDO

Towards the end of 1983, FOPEX approached UNIDO with a request for technical assistance to complete the project initiated during the previous year. Following an analysis of the project submitted by FOPEX to this end, UNIDO agreed to provide the assistance requested. The project thus accepted was planned to last a year and a half, and its basic objectives are reflected in the job description furnished to the expert.

During the expert's first mission, held within the framework of Project SI/PER/85/801, the strategy to be followed, together with the counterpart, was defined, the programme being divided into five phases, with direct assistance by the expert.

Phase 1: was carried out during the period 24 April to 22 May 1985.

Phase 2: took place from 31 August 1985 to 25 September 1985.

Phase 3: had Spain and France as its scenario, beginning at Barcelona (Spain) on 20 November 1985 and ending in Paris (France) on 30 November of the same year.

Phase 4: again took place in Peru, between 7 April 1986 to 5 May 1986.

Phase 5: the final phase of the project, began on 20 October and ended on 13 November 1986.

### 3.3 Strategy followed for the development of the second project

As in previous missions, the expert on arrival in Peru in April 1985 set to work to study the progress made by the Lima Exchange. As will be remembered, the last mission had taken place during the month of February 1983. On the basis of the goals proposed and the progress achieved by the counterpart during the two years in which no technical assistance of any kind was received from UNIDO, both parties prepared a work plan which, as pointed out in the previous section, was divided into five phases. The most outstanding activities within each of the phases in question were the following:

#### Phase 1

The initial activity carried out by the expert consisted of an analysis and evaluation of the activities carried out by the counterpart during the two years between the end of Project SI/PER/81/801 and the beginning of the present project. In section 3.4 below, particulars will be given of the conclusions reached by the expert.

Other activities carried out during this Phase 1 were:

- (a) Preparation of the general strategy for the development of the project;
- (b) Concrete action to broaden the activities of the Lima Exchange to include other sectors such as plastics, rubber, ready-made garments, etc.;
- (c) Action to establish subcontracting exchanges at Arequipa (BSCA) and Trujillo (BSCT);
- (d) Study and proposals for the establishment of a national subcontracting council.

#### Phase 2

The activities programmed for this phase were as follows:

- (a) Review of the work carried out by the Lima Exchange to expand its services to the sectors mentioned under (b) above;

- (b) Beginning of the rendering of services in these sectors, following an intensive campaign to create awareness and motivation among contractors and subcontractors;
- (c) Definition of a strategy to promote the export of subcontracting services from Peru;
- (d) Preparation for the inauguration of Exchanges at Arequipa and Trujillo in the event of the promoting institutions deciding to set them up. Similarly, the training of technical teams for these Exchanges;
- (e) Preparation of a study mission to Spain and France, planned for the subsequent phase;
- (f) Analysis of and stimulus to the legal provisions set in motion by the Government, in particular the creation of a national subcontracting council.

### Phase 3

This phase, as already said, was programmed to be carried out in Spain and France. The work programme drawn up for those taking part in the mission was as follows:

- (a) From 20 to 24 November 1985, working sessions in Barcelona (Spain) with a view to acquiring knowledge of the situation in Spain in regard to the promotion of industrial subcontracting;
- (b) From 25 to 30 November 1985, visits to the MIDEST Subcontracting Fair in Paris (France), and study of the way in which the export of subcontracting services can be promoted through such events.

### Phase 4

The most significant activities scheduled during the course of this phase were:

- (a) Evaluation of the results achieved by the Lima Exchange following the expansion of its services to industrial sectors other than mechanical engineering;
- (b) Review of the work to be carried out by the Arequipa and Trujillo Exchanges, in the event of their actually materializing;
- (c) Preparation, in conjunction with FOPEX and the Exchanges, for some degree of participation in fairs held in the area, through which it might be possible to promote the export of subcontracting services.

### Phase 5

The most significant activities to be carried out would be:

- (a) Expansion of the Arequipa and Trujillo Exchange services to other

sectors in the event of sufficient experience being accumulated in the mechanical engineering sphere;

- (b) Evaluation of the results achieved after one year of experience in the field of export of subcontracting services;
- (c) Correction of any maladjustments that might have been produced in any of the three Exchanges.

By the end of this phase, Project SI/PER/85/801 would be regarded as concluded, the counterpart being in a position to operate the system alone.

### 3.4 The expert's first mission: definition of an overall strategy for the project

The expert's first mission as part of the project with which we are now concerned took place in Peru, as already said, between 24 April and 22 May 1985.

In the analysis and evaluation of the results achieved by the counterpart during the two years when no technical support was received from UNIDO, the following facts came to light:

- (i) Because of the ongoing task of compiling information from subcontracting industries interested in becoming affiliated to the Lima Exchange, it had been found possible to set up a card index of 528 industries willing to provide services in the mechanical engineering sector. On the basis of this number of affiliates, the various processes set out the catalogue referred to in section 2.1.4 (I) were easily covered;
- (ii) Since the Exchange began to operate, 305 requests had been followed up, covering a wide range of mechanical engineering operations. This figure gives an approximate average of one each working day, a figure more than satisfactory if we bear in mind that the economy of Peru was passing through one of the worst crises in its history;
- (iii) Follow-up and evaluation of a sampling of the operations mentioned above indicated that the turnover represented by the whole series was more than \$US1 million.

Bearing in mind that the Exchange may receive information on the amount of the turnover for a first arrangement, but that repeated assignment overtures are not brought to its attention, and also that a deal clinched for the manufacture of a spare part or minor component and carried out to the full satisfaction of the parties concerned can result in the contractor making fresh requests direct to the subcontractor for the manufacture of other items, it would be fair to state that the above-mentioned economic valuation could easily be multiplied by two or three.

Bearing these statements in mind, it would not be rash to consider that the economic value of the deals carried out between contractors and subcontractors as a result of contact brought about through the Exchange amounted to several million U.S. dollars.

During this first mission, the expert prepared the general strategy for the project as described in section 3.3 above, in close collaboration with the counterpart.

With a view to extending the services to other sectors, the expert and the Lima technical team undertook during this mission the preparation of the catalogues of processes for the plastics and rubber sectors, as well as for ready-made garments. In carrying out these tasks, they made use of the work done by the European Economic Community (EEC) and the inestimable assistance of the technical personnel of SENATI, who gave tremendous support in the description of the various processes and the identification of the machinery used for carrying them out. By the end of the mission, the catalogue of processes for the plastics and rubber sector was virtually completed, and that for ready-made garments had already been started.

The expert travelled to Arequipa and Trujillo to establish contact with the Managing Committees of these cities, where he had undertaken the establishment of the relevant Subcontracting Exchanges. In the case of Arequipa, by the end of the expert's mission, there was already a rough draft of statutes for the Exchange to be set up and a draft constitution for submitting to the notary. The expert helped with these tasks, as well as with the establishment of a working budget for the rest of the current year, amounting to 164 million soles, or approximately \$US 16,400. In the case of Trujillo, during the two years when no technical assistance was received from UNIDO, the task of promoting a Subcontracting Exchange was undertaken by PROIND. But in spite of the work carried out by this institution, the creation of a Trujillo Exchange did not materialize.

During the expert's mission, the opportunity was taken to set up a Management Committee made up of representatives of the same institutions that had promoted the setting up of the Lima Exchange. Similarly, a working budget was drawn up in the amount of 181 million soles, approximately equal to \$US 18,000. In the course of the mission in question, the expert urged on the Ministry of Industry, Commerce, Tourism and Integration the need to set up a body, which might be called the National Subcontracting Commission (or Council), with the basic task of establishing proper co-ordination between the various Exchanges created in Peru and acting as a source of communication with the Government.

### 3.5 The expert's second mission: creation of the Arequipa Exchange

The expert's second mission also took place in Peru, between 31 August and 25 September 1985. In the course of the analysis and evaluation of the results achieved by the counterpart during the period of the expert's absence, the following facts came to light:

- I. Subcontracting is an industrial development device fairly well known to Peruvian industry. Nevertheless, the number of assignments which came into the Lima Exchange was rather smaller than it might have been. A total of 140 assignments recorded during the first 10 months of the year gave an average of rather more than one every two days. This figure could be improved by a sound promotional campaign carried out directly by the Manager and the Exchange's publicity officer. For this reason it was recommended once again that a solution be found for the lack of training of the Manager in management and particularly in marketing.
  
- II. Because the problem of financing had not yet been solved, the most worrying weak point in the Subcontracting Exchanges in Peru still persisted. As will be recalled, the budgets of the Exchanges in Peru were covered by contributions from the founder members in the form of either goods, services or cash. Once again, it was emphasised that these contributions depended entirely on the discretion of the associates, and particularly, on the good will of the persons in charge of these institutions at the particular time. It again became clear that because the budgets for maintaining Exchanges are relatively modest, it was desirable that some resources should come directly from the general budgets of the State or indirectly from some levy or tax imposed on industry. More will be said on this point when we come to comment on the subsection relating to the Law governing small industry.
  
- III. Because the Arequipa Exchange was ready now to initiate operations, it was more and more urgent to set up a National Subcontracting Council (or Committee) involving public and private institutions which had something to do with subcontracting and hence with Exchanges. The change of Government which brought with it a change of Minister for Industry was a factor which made it necessary to start work all over again. Unless a body can be set up which fixes the policy for the promotion of subcontracting and coordinates the activities of the Exchanges between themselves, it seems probable that there will be malfunctioning in this direction in the future.
  
- IV. In the Lima Exchange, the team of workers had been excessively easy-going so that, as has been said, the publicity schedule was not carried out with all the energy required; likewise the number of questionnaires completed every week by the investigators was alarmingly small, and the plan for "direction by objectives" designed by the expert during his previous mission had not yet been implemented. The expert gave up a considerable amount of his time to providing concrete directives as to the way of solving these problems and achieving the results anticipated.

- V. By the date when the expert left at the end of his mission, not only had the catalogue of processes for the plastics and rubber sector been completed, but it had been found possible to interrogate some 40 industries in this sector, completely covering virtually all the processes in the catalogue.
- VI. In consequence of the change of Government in July 1985, and perhaps for other causes unknown to the expert, the process of setting up the Exchange in Arequipa was virtually paralysed. We shall return to this subject later on.

### 3.5.1 Parliamentary Bill for a law on small industrial undertakings

On his arrival in Peru, the expert analysed a Bill for a law on small industrial undertakings prepared for presentation and discussion in the Legislative Chamber. Among the outstanding aspects of the project in question was the proposal to suppress the multitude of taxes on small industry and to replace them by a single tax. Naturally, the payment of social security levies was maintained. The advantage of this arrangement was that the tax burden on small industry was reduced and the cash flow problem was eased.

Looking at the Bill from the point of view of subcontracting, the topic with which we are concerned here, we see that its clauses include statements to the effect that part of the single tax contemplated would be used for the development of promotional activities designed to benefit small and medium industry. Training, technical assistance and the promotion of subcontracting appeared in the Bill as outstanding features designed to favour and benefit the development of this sector. Similarly, the Bill would set up a Peruvian National Subcontracting Committee made up of a representative of each of the following institutions:

Fund for the Promotion of Non-Traditional Exports (FOPEX)  
Industrial Bank of Peru (BIP)  
National Industrial Work Training Service (SENATI)  
Association of Small and Medium Industrialists of Peru (APEMIPE)  
National Association of Industries (SNI)  
Development Finance Corporation (COFIDE)

This Committee was to be presided over by the Ministry of Industry, Commerce, Tourism and Integration, and it would generate the policy to be followed in regard to the promotion of subcontracting.

The expert made some observations on the draft Bill, and once they had been incorporated in it, it was forwarded to the Industrial Commission of the Senate for debate.

A copy of the Bill for a law governing small industrial enterprises, as submitted to the expert, is available at UNIDO.

### 3.5.2 Programme for promoting the export of subcontracting services

Over a number of working sessions held between executives of FOPEX, the Lima Exchange and the expert, a scheme was drawn up for a programme to promote the export of subcontracting services. The main features of this programme were:

- I. Scope. The sectors covered were mechanical engineering, plastics and rubber, where sufficient experience would have been gained by the beginning of 1986.
- II. Markets. On the basis of analyses made jointly with FOPEX of the markets for the natural flow of "spare parts and components" now being exported from Peru, it was found that these markets were the United States of America, the countries of the Andean Pact, and Chile.  

The export of "spare parts and components" cannot of course be confused with that of subcontracting services, but what is not in doubt is that these go to very similar if not the same markets and clients; hence, if there is an export flow for the former, there should also be one for subcontracting, if proper promotion machinery is set up.
- III. Instruments. The instruments to be used should be the following:
  - (a) Subcontracting fairs or fairs which have a strong industrial slant and hence concentrate on undertakings calling for a considerable quantity and variety of subcontracted services: automotive sector, machinery in general, domestic electrical appliances, etc.
  - (b) Negotiation rounds organized by the Board of the Cartagena Agreement.
  - (c) Specialized missions by Peruvian subcontracting industrialists, to countries identified as potential markets.
  - (d) Missions in the other direction by potential contractors from other countries.
- IV. Strategy. The strategy to be followed would involve two stages. During the first stage, experience would be gained regarding the way in which certain countries promote exports of subcontracting services, and a subcontracting fair would be organized directly. The countries to be visited would be the European countries belonging to the European Economic Community (EEC), and the fair would be the one genuinely devoted to these topics, namely MIDEST.

Those taking part in such a mission would be persons linked to the Project for the Promotion of Industrial Subcontracting in Peru, and they should be properly qualified to assimilate the European experiences of the way in which both contractors and subcontractors behave. The mission might comprise: two representatives of the



industrial sector; one representative of FOPEX, whose main objective would be to glean information on the way in which the public bodies in such countries stimulate the export of subcontracting services; and finally, the Manager of one of the existing Exchanges in Peru, who would be responsible for the execution at technical level of the entire programme of participation in fairs referred to under subheading (a) of the previous section.

During the second phase, and on the basis of the experience acquired in Europe as a result of the mission, the strategy would have to be designed with a view to carrying out the programme we are now studying in 1986.

- V. Support. FOPEX would be called upon to define very clearly what expenditure heads it would be prepared to support, and which would have to be financed through other channels.

### 3.5.3 Creation of the Arequipa Subcontracting Exchange (BSCA)

Between May and September 1985, the Management Committee for the establishment of the Exchange succeeded in prevailing upon the boards of directors of the member institutions (SENATI, FOPEX, COFIDE, ASEMÍN, Industrial Bank and Chamber of Commerce) to empower the representatives of those institutions on the Management Committee to sign the draft constitution for the Exchange before a notary.

In spite of the upset caused by the change of Government in the natural flow of the work, at the first meeting held by the expert at Arequipa all the documentation was available for formally setting up the Exchange with the legal status of a non-profit-making corporation. Both the statutes and the rest of the rules and regulations are taken from those adopted at the time by the Lima Exchange, without any change whatever as regards their contents.

Once the draft had been signed before a notary and presented for entry in the public register, the expert held a second working meeting at which the directors of all the promoting institutions were present or represented. At this meeting, the expert described the action to be taken for the creation of the data banks relating to the mechanical engineering section. A staff structure adequate to carry out the compiling of the card index files was likewise defined.

The Directing Council appointed Mr. Jorge Delgado Rojas as acting Manager of the Arequipa Exchange, and with him a working plan was drawn up, to be completed by the end of 1985, specifying what tasks would require technical assistance from the Lima Exchange. In the afternoon of 17 September, the expert gave a talk which was attended by some 25 entrepreneurs, directors and technicians from a similar number of industries at Arequipa.

### 3.5.4 Programme for promoting subcontracting in the Andean Pact countries

The Board of the Cartagena Agreement, whose industrial promotion objectives include assistance in setting up Subcontracting Exchanges in the various member countries, requested UNIDO to provide help by the expert over a three-day period, with a view to preparing an overall project for setting up Exchanges in the countries still not possessing this type of structure.

UNIDO agreed to this request for assistance, and the expert prepared a draft outlining a strategic and operational plan for the establishment of Subcontracting Exchanges in Colombia, Ecuador, Venezuela and Bolivia, their essential features being:

- (a) Time-scale: three years;
- (b) Technical assistance: 21 man/months in all;
- (c) Objective: to create an average of two Subcontracting Exchanges per country in Venezuela, Colombia, Ecuador and Bolivia.

Surprisingly enough, this proposal, prepared by the expert at the request of the Board of the Cartagena Agreement (JUNAC) was answered by the latter with a counter-proposal, which for reasons which the expert finds it difficult to understand was sent two days after the deadline fixed by the United Nations for the submission of projects. Naturally, the proposal was not approved, since it was never analysed by the United Nations selection team because of the delay in its submission.

(A copy of both projects, the one prepared by the expert and the counter-proposal by JUNAC, is available at UNIDO).

### 3.6 Fact-finding mission to Europe by the Lima Subcontracting Exchange

The mission travelled to Spain and France between 20 and 30 November 1985. The basic objectives sought by the members of the mission were three in number:

First: To establish contacts with subcontracting industrialists from Spain and other European countries, with a view to hearing directly from them about subcontracting as an entrepreneurial development strategy, enabling industries taking this option to grow, develop technologically, obtain an adequate return on investment, and export a considerable part of their production. This was done in the industrial sector of Barcelona, the capital of the most highly industrialized region of Spain. The work schedule was prepared by the expert, who is also the Director of the Department of Industrial Promotion and Technology of the official Chamber of Commerce, Industry and Navigation of Barcelona, one of his activities being that of promoting industrial subcontracting through the management of an Exchange with over 20 years of experience.

**Second.** To become acquainted with the strategy and working methodology followed by the Subcontracting Exchange in question, in regard to the task of promoting the export of this type of service. In acquiring this experience in which the Barcelona Subcontracting Exchange is a pioneer and a leader for the whole of Spain, the members of the mission had the support of the person currently in charge of the Exchange in question.

**Third.** To have the experience of attending an international subcontracting fair, where the importance of this sector of industrial activity and the volume of turnover really achieved by this means, can be appreciated at first hand. Concretely, this experience was enjoyed by the members of the mission in Paris (France), in connection with the celebration of the MIDEST '85 Fair, the first specialized event of this type at European level.

During the mission's stay in Paris, its members were able to exchange views with the official from Vienna in charge of the follow-up of the project; Mr. André de Combrughe, who also had the opportunity to become acquainted directly with the results achieved, and to receive full information on the various aspects of the progress of the project.

(The reports prepared in this connection are available at UNIDO in Spanish)

### **3.7 The expert's third mission: the promotion of international subcontracting**

The expert's third mission took place in Peru between 7 April and 5 May 1986. The main objectives to be achieved during this mission were basically:

- (a) To see that subcontracting is used not only in the private sector but also within undertakings in the public sector;
- (b) To examine the results of the programme of work aimed at setting up a Subcontracting Exchange at Arequipa;
- (c) To encourage the establishment of an Exchange at Trujillo;
- (d) To prepare the strategy and instruments for promoting the export of subcontracting services from Peru;
- (e) To seek ways and means of obtaining funds for Exchanges set up in Peru.

#### **3.7.1 Promotion of subcontracting in the public sector**

In the course of the mission, the expert and the Manager of the Lima Exchange undertook an active campaign to motivate those responsible for defining the policies and framework within which State purchasing should take place. It should not be forgotten that in Peru, as in any other nation, the State is the leading purchasing enterprise in the country. Bearing this in mind, as well as the fact that the Directorate-General in charge of State purchases is attached to the Ministry of Industry, Commerce,

Tourism and Integration (MICTI), a department which has from the outset supported the creation and development of Subcontracting Exchanges, it was felt desirable to single out State Purchasing, which can generate assignments in plenty for the Exchanges in Peru.

In the course of the working meetings with the directors of the Special Project for State Purchasing, the expert was asked to prepare a document of a few pages explaining how subcontracting and State Purchasing properly articulated, can give a boost to the development of the subcontracting sector of Peruvian industry.

(A copy of the document setting forth the ideas mentioned above is available at UNIDO in Spanish)

### 3.7.2 Beginning of operations at the Arequipa Subcontracting Exchange

The team from the Arequipa Subcontracting Exchange, both at directorate level and at technical level, rigorously followed the plan of work and the objectives laid down by the expert during his mission in September 1985. The first action under the plan was the ratification of Mr. Jorge Delgado Rojas as acting Manager of the Arequipa Exchange. At the time, Mr. Delgado was an official of SENATI and Director of the IDAMPEI programme, an activity compatible with that of Manager of the Exchange and taking up half his working day.

In mid-October 1985, following the programme drawn up by the expert, the Manager of the Arequipa Exchange, assisted by Mr. Manuel F. Tejada, the Manager of the Lima Exchange, arranged for the selection and subsequent training of persons to make up the future team of promoters and investigators for the Exchange in question.

In the selection process, the instructions given by the expert were followed in regard to the qualifications of possible candidates. It was decided that they should have had training as industrial engineers, mechanical engineers or mechanical engineering technicians, and should have a sound basic knowledge of the most common mechanical engineering processes, namely smelting and sintering, metal conversion with and without the production of scrap, industrial assembly, thermal treatment, surface treatment, and quality control and measurement. The outcome of the selection process was that a mechanical engineer and an industrial design technician were singled out and subsequently contracted. Later on, the expert was able to testify both to the sound professional training possessed by both of them and to their aptitude and motivation for the post.

In the relevant job description, and in the definition of the tasks associated with the posts, the instructions given by the expert were followed. On the date of selection and contracting of the promotion officers in question, the expert was not in the country. As envisaged in the general plan for the promotion of subcontracting in Peru, thanks to the technical support given by the Lima and Arequipa Exchanges, the expert's recommendation was implemented, namely that each newly-created Exchange should receive less and less technical support from the expert and more

assistance from the Exchanges already functioning in the country. The results achieved made it clear once again that the experience acquired by the Lima Exchange can and should be utilized for the promotion of other Exchanges in Peru. This is the clue to ensuring that the system is really integrated and does not become technically dependent on outside advisory services.

The training of the promotion officers/investigators was carried out immediately after they were appointed, and the technical staff of the Lima Exchange played a notable part in their training.

The promotion officers contracted were given a short training course basically covering the following questions:

What is industrial subcontracting? Its role in developed economies.

Who are contractors? Who are the subcontractors?

What is a Subcontracting Exchange, and how does it work?

What advantages does subcontracting offer to contractors, other subcontractors and the industrial structure of the country?

The mechanical engineering processes catalogue. A detailed study of each process

The subcontracting industries data bank - the backbone of any Exchange;

The affiliation questionnaire: study of its contents in both its complete version and the shortened version.

The various card index files making up the information system of an exchange.

Index cards as the basis of the card index files

The building up of files from data in questionnaires.

Final reflections on the importance of affiliation and investigation for the proper functioning of an Exchange.

The course was conducted by the Manager of the Lima Exchange, who was thus given an excellent opportunity to review all notions and arguments explained to him on earlier occasions, in connection with his training during the period when the Lima Subcontracting Exchange was set up.

On 1 November, the work of creating awareness and motivation among the subcontracting industries was begun, starting off with the identification of the target population, consisting of the industries in Divisions 37 and 38 of the mechanical engineering branch, which after an initial selection gave a total of 270 industries for the city of Arequipa. The publicity and motivation tasks - apart from the preparation of printed material, which will be mentioned later - were undertaken personally by the Manager of the Exchange, the director representing FOPEX, and the promotion officers/investigators.

By the end of 1985, the 270 industries referred to had been personally visited, and 182 became effective contacts for future affiliation.

During the visits, information was given on the purpose of subcontracting, the method of operating an Exchange, and the benefits derived from this form of inter-entrepreneurial relations.

Thus by the end of December 1985, the Arequipa Exchange had:

- (a) Selected, trained and briefed the two investigators who would make up the promotion team;
- (b) Prepared the printed materials for promotional purposes;
- (c) Identified and contacted the most representative mechanical engineering industries, capable of acting as potential subcontractors;
- (d) Prepared and obtained the approval of the Committee of Directors for, an operational budget covering the current year, ready for submission for final approval to the institutions promoting the Exchange, in the hope that each of them would be responsible for part of it.

During the first few months of 1986, until the arrival of the expert, efforts were concentrated on the task of compiling information from the subcontracting industries identified in the 270 visits paid beforehand and those referred to earlier. With a view to reinforcing the tasks of awareness-creating and information concerning the Exchange and its objectives, every opportunity was taken to send messages or notes to the press, both local and national.

### 3.7.3 Action in favour of setting up the Trujillo Subcontracting Exchange.

In spite of the efforts made both by FOPEX and by the expert to initiate the process for the creation of an Exchange at Trujillo, no concrete results were achieved during the third mission. Trujillo, and its area of influence, is a zone that has been severely affected by the economic crisis from which Peru has suffered. This has meant that the Peruvian Government is giving special attention to the design of a policy to promote the Department of La Libertad, of which Trujillo is the capital. During the last week of the expert's visit to Peru, a number of seminars were held in that city to consider the various areas of economic activity. Almost all the government Ministers and Vice-Ministers concerned with economic matters took part in these seminars.

If the Government should design a specific policy of support to that area of the country, it is very probable that the Subcontracting Exchange will be included as one of the instruments for a more balanced industrial development of the region. But of one thing there is no doubt; the expert continues to feel that the enthusiasm of the representatives of the institutions which promote subcontracting in Peru is an essential condition

for the establishment of an Exchange in that region. Up to the present, in spite of two attempts that have been made, the right amount does not yet appear to have arrived.

### 3.7.4 Promotion of the export of subcontracting services from Peru

The creation of data banks, which constitute the backbone of an Exchange, is only a small part of what a programme for the promotion of subcontracting must aim at. Thus, following the establishment of two Exchanges and the acquisition of a certain amount of experience in managing subcontracting at domestic level, the Programme for the Promotion of Subcontracting in Peru, following the directives outlined by the expert, has concentrated on the development of a type of action designed to promote the export of subcontracting services to other countries of the area or the continent. Among these actions, the following may be mentioned:

#### 3.7.4.1 Catalogue of subcontracting industries in Peru

As indicated in the Conclusions and Recommendations of the report prepared by the expert at the end of his second mission, it would be well to devote special attention to promoting the export of subcontracting services from Peru to other markets in the sub-region or the American continent. Any promotion task means having available printed material in support of the work of information, motivation and identification.

The subcontracting industry catalogues are a useful tool for informing motivating and assisting the contracting industries of all the countries which plan to carry out subcontracting in other countries. Under the direction of FOPEX, and on the basis of information already existing in the Exchange, the necessary work of editing and producing a catalogue of subcontracting industries in Peru was undertaken. The catalogue will be bilingual (Spanish-English) and it is designed on the basis of interchangeable index cards. The advantage of this system is twofold. First of all, it makes it possible to expand the catalogue indefinitely, by adding index cards for new subcontracting industries. Secondly, it makes it possible to review the cards for undertakings which have undergone considerable changes in their machinery park, in the processes they have been developing, or in any of the other fields of information that appear on the cards in question, without the need to reprint the entire catalogue.

In the course of his mission, the expert had the opportunity to analyse and work on the concept and make-up of the catalogue in question, which by the time it is issued will contain information on 34 subcontracting industries affiliated to the Lima Exchange.

(A specimen of the catalogue of subcontracting industries in Peru is available at UNIDO)

#### 3.7.4.2 Design of a modular subcontracting fair-stand for Peru

During the final week of the present mission, the expert gave special

attention to the technical matters which need to be considered in regard to any participation in international fairs held outside Peru. Since the printed matter for promotional purposes was virtually ready and the catalogue on subcontracting in Peru had reached an advanced stage, the basic work in hand was the designing of a modular stand which could be displayed at all foreign fairs where FOPEX considered it desirable to publicize the export of this type of service.

In co-ordination with the technical team of the Lima Exchange and together with the design department of FOPEX, a mock-up of a "mini-stand" was sketched out, with the following basic features:

- (a) An area of approximately 3 x 3 metres square;
- (b) A permanent emplacement at one corner of the FOPEX pavilion, facing onto the two main visitors' walkways;
- (c) Symmetrical arrangement of the panels and the information to be displayed on each of the two external walls;
- (d) Panel-based construction, with three types of spaces in each:  
Upper part: photographs of subcontracting processes or products manufactured involving subcontracting;  
Centre: challenging questions (on the outside of the stand) inviting the passer-by along the walkways to take an interest in subcontracting and in Peru, and hence to step-inside.  
Information on subcontracting processes, on the panels inside;  
Lower part: reserved for engraved lettering or wording identifying the stand with Peru;
- (e) A small area for displaying promotional literature (leaflets, brochures, catalogues, etc.), situated at the end furthest away from the door, the idea being that people wishing to obtain this literature have to step inside;
- (f) An area for dealing with visitors, situated next to the entrance door, and attended by the person minding the stand;
- (g) A revolving show-case, placed in the centre of the stand, showing small spare parts manufactured on a subcontracting basis. The spare parts would be encased in transparent plaques of some plastic material.

#### 3.7.4.3 Programme of participation in industrial fairs abroad

As already been said on numerous occasions, the assistance received both from the expert and from UNIDO for the promotion of industrial subcontracting within Peru is becoming less and less necessary. Nevertheless, as was established in the initial project, the real contribution of subcontracting to Peruvian industry must be sought essentially in the capacity to export such services to markets within the area or on the American continent.



The high levels of idle installed capacity (in many instances more than 40 per cent) will not be substantially improved by simply relying on the reactivation of domestic demand. Hence it is desirable to follow the example of some European and East Asian countries, and to seek comparative advantages to ensure competitiveness in external markets. Both the representatives of the institutions promoting the creation of Exchanges and their boards of director and technical personnel are more and more convinced of the need to put this strategy into practice.

In the course of November 1985, in connection with the MIDESE '85 International Subcontracting Fair held in Paris, a mission consisting of representatives of the Lima Exchange travelled to Europe. Its essential objective was to find out on the spot how the export of this type of service is promoted and how such activities are organized at a practical level. The mission consisted of:

An industrialist representing the small and medium industry sector;

A representative of FOPEX, the body entrusted in Peru with the task of promoting the export of Peruvian products and services;

The Manager of the Lima Subcontracting Exchange, which as the oldest Exchange has to be the one called upon to take the first step in this new field;

A representative of industry at large, who also happened to be President of the Lima Exchange and a subcontracting industrial entrepreneur.

The working sessions of the group took place in Spain and France. In Spain, the group had an opportunity to learn directly how this type of services is promoted by the Chamber of Commerce, Industry and Navigation of Barcelona through its Industrial Promotion and Technology Department, within which a Subcontracting Exchange operates.

The programme of work was developed with the technical staff of the Chamber of Commerce in charge of the management of such activities. The mission was also in contact with subcontracting industries in the area with considerable, fair or no experience in exporting subcontracting services to the Central European markets.

(A copy of the letter/report sent by the expert to the Technical Manager of FOPEX (the counterpart body in the project) explaining the programme of work and pointing to certain conclusions is available at UNIDO).

In consequence of the experience gained in the course of the study mission to Spain and France, during the third mission by the expert, the foundations were laid for what might well be the first effort for the promotion of exports of subcontracting services within the Andean area. It was therefore felt that the Peruvian Subcontracting Exchanges should be represented on the stands which FOPEX had proposed to take at the International Fair of Bogota (Colombia), to be held in July this year, and at the International Fair of Santiago (Chile) scheduled for the month of

October. This try-out within the Andean area will help to give the necessary experience so as to be able to operate next year in other markets within the American continent.

**3.7.5 Participation in the annual meeting of the General Board of Associates of the Lima Exchange**

On Wednesday, 30 April, at 12 noon, at the headquarters of the Industrial Bank of Peru, the annual meeting or ordinary general meeting of Associates of the Lima Exchange was held, in accordance with the rule to this effect in its statutes. Those attending the meeting included all the presidents of the promoting institutions, with Admiral Jerónimo Cafferata acting as President of the Board, and because of its status as host, the President of the Industrial Bank of Peru. In the absence from the country of Mr. Mario Rodríguez, President of the Lima Exchange, the annual report, balance sheet and schedule of activities for the following financial year were presented by the Vice-President, Mr. Máximo Reyes. Following this, in a ceremony worthy of mention in this report, the Board of Presidents congratulated the Board of Directors of the Exchange on the work accomplished, and requested the members to carry on the management for another period of office. This decision removed one of the risks anticipated by the expert in the recommendations formulated in the report on the second mission, namely the possibility of having to re-form the Board of Directors. The continuation in office of the same persons on the Board of Directors is a sound guarantee of continuity for the schedule of operations initiated.

**3.7.6 Parliamentary Bill for a law on small industry and the financing of Subcontracting Exchanges**

In the course of the second mission, carried out in September 1985, the expert had an opportunity to intervene in regard to one of the matters most in need of attention if the programme for promoting subcontracting in Peru is to be properly rounded off, namely the financing of the existing Exchanges and those that may be set up in the future.

At the present time, as is known, the budgets of the Exchanges are covered by contributions from the institutions which promoted their establishment. The eagerness to boost subcontracting manifested time and time again by the heads of the institutions promoting the Exchanges, and the strong conviction that this feature of industrial policy favours inter-relationships between small industry and medium and large industry, today overrules any administrative difficulty which might arise in connection with the contributions. Nevertheless, there is a large discretionary element in the present machinery. Hence it does not automatically solve the problem of the financing of the Exchanges, but rather leaves it to the good will of those who administer the institutions.

The parliamentary Bill for a law on small industry, establishing the role of the Exchanges and ensuring their financing by means of a tax

percentage, has not yet been approved. The Government's intention to make a thorough study of all matters relating to industrial promotion may very well be the cause of the delay. In any event, this is a topic to which special attention will have to continue to be given if we are to establish the Programme for the Promotion of Industrial Subcontracting in Peru on a really sound basis.

### 3.8 The expert's fourth mission establishment of the Trujillo Subcontracting Exchange.

The expert's fourth mission, concluding Project SI/PER/85/801 for the promotion of subcontracting in Peru, took place between 19 October and 14 November 1986. In the course of the usual analysis of the work carried out by the counterpart between the two missions, the expert was pleasantly surprised to find that the Management Committee for the establishment of a Subcontracting Exchange at Trujillo had made a decided start, under the leadership of FOPEX, on the work to set up an Exchange in that city. The work was so well advanced that the expert gave preference to this topic among the series of activities to be carried out in the course of his mission.

The definitive list of institutions promoting the establishment of this Exchange is:

- Fund for the Promotion of Non-Traditional Exports (FOPEX)
- National Industrial Work Training Service (SENATI)
- Industrial Bank of Peru (BIP)
- Development Finance Corporation (COFIDE)
- Trujillo Chamber of Commerce
- Association of Merchants and Industrialists of Trujillo (ACIT)
- Trujillo Departmental Industrial Corporation (PROIND)
- La Libertad Departmental Corporation (CORDELIB)

At an initial working meeting held with the President of the Management Committee, an analysis was made of the activities carried out and the work programme planned for completion by the end of the current year. Once the strategy had been defined and the appropriate adjustments had been made to the work programme, the expert held a working meeting with all the members of the Management Committee, at which he outlined the sequence of activities to be carried in order that the Exchange could be inaugurated officially at the beginning of next year and operations could start during the month of January.

At the moment, half the manpower is available. There is a Manager, transferred from the Ministry of Industry, Commerce, Tourism and Integration, and a secretary seconded by the La Libertad Corporation.

A third working meeting, held with Mr. Manuel Vázquez, Chairman of the Management Committee, helped to define the method of finding candidates for posts of investigators responsible for compiling information from

industries, and to prepare job descriptions and specify the type of training the candidates need to have.

During a second visit by the expert to Trujillo in the last week of his stay in Peru, he interviewed all the candidates for the posts of investigators, and gave the acting Manager of the Management Committee the results of his pre-selection of a short-list of candidates.

Taking advantage of the opportunities provided by the means of communication available and the meetings of industrialists or other events in which they participate, the Management Committee, and particularly the Manager, carried out an intensive campaign of publicity, awareness-creating and motivation in relation to subcontracting and Exchanges, and the benefits that these can bring to industry in particular and to the Department of La Libertad in general.

By the time the expert's mission was completed, the creation of the Trujillo Exchange depended solely on receiving the names of representatives of the boards of directors of the institutions, i.e. the names of the individuals who will represent the latter both on the General Board of Associates and on the Board of Directors of the Exchange.

To ensure the fulfilment of the expert's plans in regard to mutual assistance among the Exchanges in Peru, it has been arranged that during the week of 17 to 22 of the present month, Mr. Pedro Tang, the former Technical Director of the Lima Exchange and the present publicity chief for mechanical engineering products and subcontracting of FOPEX, will visit Trujillo to give a short training course and briefing to the prospective investigators of the Trujillo Exchange.

Arrangements have also been made for Mr. Manuel Tejada, the Manager of the Lima Exchange, to visit Trujillo in mid-December next for the purpose of briefing the acting Manager of the Exchange on all matters relating to the establishment of card index files and other matters relating to the functioning of a Subcontracting Exchange; and during the first half of January next year, there are plans for a visit by the Manager of the Trujillo Exchange to Lima for the purpose of seeing directly and in a practical manner how a Subcontracting Exchange functions.

In addition to the specific tasks involved in supporting the creation of the last of the Exchanges envisaged in the project, the expert devoted his efforts to the following matters:

### 3.8.1 Participation by Peruvian subcontractors in the Bogota Fair

During the expert's third mission, a design was sketched out for a small stand, as described in section 3.7.4.2. The idea was that this should be used either separately or as part of the FOPEX pavilion, to present the opportunities for subcontracting by the auxiliary industries of Peru when FOPEX participates in fairs abroad.

The first fair held outside Peru where this "mini-stand" was erected was the Bogota Fair held during the first half of 1986. Here too, for the first time, the catalogue of subcontracting services was displayed - a device which, if duly distributed among large-scale contractors of the target countries for Peruvian subcontracting, can undoubtedly help to make the Peruvian potential known in this sector. During the period of the Bogota Fair, some 40 opportunities occurred, but not all the advantage hoped for could be taken of them because of the imprecise manner in which the data were collected. This is hardly surprising, seeing that the subcontracting mini-stand was attended by a person with no training in these matters. In fact the person in charge of Peru's main stand was the same one who was in charge of consultations on subcontracting.

The expert has already pointed out to the counterpart that it is absolutely essential that when Peru participates in fairs, either within the country or abroad, the person in charge of the Peruvian subcontracting stand should be the Manager or Technical Director of one of the Exchanges or someone well acquainted with this highly specialized mechanism.

### 3.8.2 Participation in MIDEST '86

As will be recalled, the report submitted by the expert at the end of his second mission stated that MIDEST provided an excellent training ground where persons in Peru engaged in promoting the export of subcontracting services can learn how sales of this type of service are promoted in Europe. Nevertheless, the expert stated on that occasion, and continues to maintain today, that except in the case of components or spare parts produced with highly advanced technology or with a very high value per kilogramme, it is not possible to export subcontracting from Peru to the EEC countries. The freight and insurance costs are far higher than the comparative advantage which Peru could obtain through cheaper labour. In any event, this differential advantage also applies to the North African countries, where insurance and transport costs are far lower. Any gap existing in the European subcontracting market that can be covered by developing countries will undoubtedly be filled by Morocco or Tunisia.

When the expert arrived in Peru to begin his second mission, he found that FOPEX had already advanced funds to set up a stand in MIDEST with a view to promoting Peruvian subcontracting in Europe through the MIDEST Fair. The European Economic Community had also envisaged providing funds to assist FOPEX with the expense of participating in this International Subcontracting Salon. After once again weighing the desirability of taking part in the Salon, the decision was taken to postpone participation until the following year (1986), when assistance from the European Economic Community would be available. This explains why Peru participated in the latest MIDEST Fair, held in November last year. It participated with a stand exclusively devoted to promoting this type of services, and displaying the panels prepared in the late spring of this year and already exhibited at the Bogota Fair. Another promotional device used was the catalogue of subcontracting services, which was distributed for the benefit of potential purchasers of

components, spare parts and accessories manufactured in Peru.

The commercial returns deriving from the presence of Peruvian subcontracting bodies at the MIDEST Fair were somewhat meagre. Nevertheless, some assignments in the field of packaging, car radiators and other articles designed for the automotive sector confirmed the expert's theory that even though the numbers are small, there are certain possibilities in the European market.

### 3.8.3. The results achieved in the Lima Exchange

By the end of the expert's fourth mission, the Lima Exchange had done excellent promotional work aimed at potential subcontractors among industrial firms. Actually, throughout the years 1983 to 1986, the number of industries visited amounted to 1,972. These were given explanations concerning the mechanism of subcontracting, informed about the existence of the Lima Exchange and the services it provides, and told about the benefits of subcontracting and how to take advantage of them by enrolling in the Exchange's card index system.

The breakdown by sectors of the industries visited was as follows:

Mechanical engineering	1,311	
Plastics and rubber	243	
Textiles and ready-made garments	410	
Wood	5	
Graphic arts	3	
	<hr/>	
	1,972	industrial undertakings

Thus it is evident that the expert's recommendations were sound when he spoke of the advisability of starting with the mechanical engineering sector, as being the one most appropriate for subcontracting, followed by the plastics and rubber, textiles and ready-made garments sectors. The fact that this order was followed is largely responsible for the success achieved. With regard to the size of the Exchange's card index system, it may be said that by the end of the expert's fourth mission, it contained detailed information on 711 industrial undertakings with the capacity and willingness to act as subcontractors, and distributed sectorally as follows:

Mechanical engineering	559	
Plastics and rubber	71	
Textiles and ready-made garments	76	
Wood	3	
Graphic arts	2	
	<hr/>	
	711	subcontracting undertakings

The trend in regard to the number of assignments undertaken has been rising over the years. Since the Exchange was set up, there have been 687 assignments, of which 602 were between Peruvian contractors and subcontractors and 85 assignments from abroad. The breakdown of these

assignments over time has been as follows:

Year 1983	45	
1984	179	
1985	211	
1986	252	
TOTAL	<u>687</u>	assignments

It should be pointed out here that throughout the month of October last, the rate of activity of the Lima Exchange grew in an extraordinary fashion. Throughout the entire month, an average of four assignments per day were dealt with. If this trend were to continue, some 900 assignments per year could pass through the Exchange, a figure which would completely eclipse all the estimates and objectives fixed. Basically, two factors have contributed to this accelerated growth of operations by the Exchange:

- (a) Greater involvement by the staff of the Exchange in the tasks of promotion designed to motivate the large-scale industries or assembly plants to engage in subcontracting.
- (b) A series of protectionist measures decreed by the Government which have made imports more costly and more difficult.

#### 3.8.4 Results achieved by the Arequipa Exchange

By the end of the expert's fourth mission, the data bank of the Arequipa Exchange showed a number of subcontractors which had varied very little in comparison with the number of affiliates recorded during the previous mission. About 100 mechanical engineering subcontracting industries constituted the whole of the processes in the catalogue for this sector.

With regard to publicity measures aimed directly at the industries, informing them and motivating them in regard to the importance of subcontracting as a tool for improving competitiveness, it should be pointed out that more than 300 industrial undertakings in the zone were visited. From the beginning of this year, when the provision of services began, until the end of the final mission, the Arequipa Exchange handled some 50 assignments. The figures can be regarded as satisfactory if we bear in mind that the southern zone in Peru, where the city in question is located, has no large contracting industries or assembly plants of any kind.

#### 3.8.5 Establishment of the Trujillo Subcontracting Exchange

When the expert reached Peru at the end of October, he was agreeably surprised to find that the Managing Committee for the creation of the Trujillo Subcontracting Exchange had recovered its former drive. Under the direction of the acting Manager of the Chamber, who was incidentally responsible for the FOPEX Chamber agreement on promoting non-traditional exports, the Management Committee had taken up the subject once more; it had appointed a Technical Secretary of the Committee, entrusting him with the development tasks and the implementation of the decisions taken by the Committee; and

it had drafted statutes for the future Subcontracting Exchange.

During the expert's visit to Trujillo, various working meetings were held at which the basic topics related to the creation and development of the Exchange were touched upon. The following are some of the more important topics:

**A. System of financing**

It was agreed that the financing of the operating budget of the Trujillo Exchange would be carried out by means of contributions from the associates, in the form either of goods, services or cash contributions.

Among the first agreements must be mentioned the fact that the Ministry of Industry, Commerce, Tourism and Integration decided to provide the officer who is acting as Technical Secretary of the Management Committee. The Corporation of the Department of La Libertad decided to provide a secretary, without prejudice to the possibility in the near future of being able also to make a cash contribution.

SENATI offered its collaboration by way of a training course for future investigators, in which a detailed account would be given, not only from a theoretical but also from a practical point of view, of the various mechanical engineering techniques that lend themselves to subcontracting. This course would be completed by practical experience in a workshop, giving the investigators an opportunity to see the various machines at work carrying out the processes for which the Exchange needs to find subcontractors.

**B. Promoting bodies**

The Trujillo Exchange presents certain differences from the other Exchanges in Peru as regards the institutions which have taken part in promoting it. The bodies promoting the Trujillo Exchange are:

The Ministry of Industry, Commerce, Tourism and Integration  
FOPEX  
SENATI  
The Industrial Bank of Peru  
The Trujillo Chamber of Commerce and Industry  
The Trujillo Association of Traders and Industrialists (ACIT)  
PROIND  
The Corporation of the Department of La Libertad

**C. Activities undertaken**

The first step was to draw up statutes for the Exchange and to prepare a draft constitution so that the notary could give it the status of a public legal instrument and have it placed on the registers.



In order to enable this action to be taken, all that remained, once the expert's mission was over, was to obtain the relevant certificates from the boards of directors of the various institutions, stating that they expressly authorised them to participate in the Trujillo Exchange, at the same time appointing the persons who would represent each institution both in the General Assembly and on the Board of Directors.

Likewise, the staff structure of the Exchange was decided upon, together with the professional qualifications which each individual employed by the Exchange must possess. With regard to staff numbers, the expert recommended that a start be made with a manager, a secretary and a technical team of investigators consisting of three or four industrial or mechanical engineers.

With regard to the Technical Secretary of the Management Committee, who was at no time suggested for appointment as Manager of the Exchange, the expert made it perfectly clear that his qualifications covered half those required by the Manager. Thus, as the people in Peru know already, the manager of any Exchange should have a sound training in technical and industrial matters. In addition, he needs to have sufficient knowledge of management to enable him to impart drive and promotional flair to the services of the Exchange. In the case of Trujillo, the person in question has an adequate knowledge of management, but has had no training on the technical side.

As is well known, during the first phase in the life-span of an Exchange, technical aspects take precedence over management. The compilation of a catalogue of processes, the building up of card index files for the data bank, dialogue with industrialists, both contractors and subcontractors, the training of investigators and other operations, requires sound technical knowledge. During the second stage in the life-span of an Exchange, the situation is reversed. The investigators are trained, and the card index system has been set up. What is essential after two years of operation of an Exchange is to promote it both inside and outside the country, in order to achieve the maximum possible number of assignments and the greatest possible volume of business between contractors and subcontractors. The essential instrument for achieving these goals is publicity, and in the final analysis, the quality of the training in this field given to the team in charge of the Exchange.

The feelings of the expert in regard to the management of the Trujillo Exchange were as follows: if the present Technical Secretary of the Management Committee was to be kept as Manager, it was absolutely essential that one of the investigators should be an engineer with sound training and experience in the mechanical engineering field.

During the expert's mission, the recruitment and selection of the investigators also took place. The expert himself personally undertook this task, with the help of the present Technical Secretary of the Management Committee. Thirteen candidates applied, and the expert recommended six of them, putting them in order of preference. During the preliminary stage, the expert also interviewed a mechanical engineer with several years

experience in the industrial field, who would be perfectly capable of filling the post of co-ordinator of the team of investigators - a post already mentioned above.

Before the expert completed his mission, he prepared an outline of a training and briefing seminar for future investigators in the Trujillo Exchange. The syllabus of the seminar was by and large as follows:

- (a) The basic concepts of subcontracting.
- (b) The benefits of subcontracting for:  
Contractors;  
Subcontractors;  
The industrial structure of the country.
- (c) Subcontracting Exchanges: What are they? How do they operate?
- (d) The data bank for an Exchange; The card index system involved.
- (e) Method of coping with a subcontracting assignment.
- (f) The questionnaire for compiling information from subcontracting industries: justification of its various sections.
- (g) Detailed explanations of the various mechanical engineering techniques contemplated in the schedule of mechanical engineering processes published by EEC and in common use for subcontracting operations.
- (h) Ways and means of approaching industry, and arguments to be put forward in the event of an industrialist not being well-informed or properly motivated in regard to subcontracting.
- (i) Identification of machinery and its practical functioning in the training workshops of SENATI.
- (j) Practical work on surveys carried out directly in industries, with the help of the former Technical Director of the Lima Exchange.

It was felt that the duration of the seminar should be three or four full days, to include not only theoretical sessions but also practical work carried out both in the SENATI workshops at Trujillo and in the subcontracting undertakings themselves.

It was arranged that those in charge of the seminar should have the help of Mr. Pedro Tang, publicity officer for the mechanical engineering and subcontracting division of FOPEX and former Technical Director of the Lima Subcontracting Exchange.

If subcontracting is to be used in an undertaking, it is essential that contractors and subcontractors should be made aware and properly informed about the advantages of this procedure. Frequently, industrial entrepreneurs take managerial decisions based on reports and opinions by the firm's technicians and engineers. Hence the expert felt it desirable to create awareness and circulate information among such professional workers,

in the hope that they would be influential within their own industries when the moment came to decide whether to manufacture direct or to subcontract.

An important working meeting took place between the Board of Directors of the College of Engineers of Trujillo and the expert, at which the following agreements were reached:

- (1) To organize conferences or seminars, under the aegis of the College of Engineers and directed towards its students, with a view to informing them as to the importance of the objectives of subcontracting.
- (2) To arrange for the technical schools of engineering, in the context of subjects related to production, to impart the basic notions of subcontracting and its importance for industry. If both professional engineers carrying on their profession, and recent graduates, are well informed about subcontracting and its possibilities, there is no doubt that the use of this instrument will be enhanced in the very near future.

#### 4. CONCLUSIONS REACHED AT THE END OF THE PROJECT

As the Programme for the Promotion of Industrial Subcontracting in Peru comes to an end with the establishment of a series of Exchanges in the larger industrialized cities of the country, the expert puts forward the Conclusions and Recommendations detailed below.

Failing a more satisfactory decision by UNIDO, the expert considers that a copy of these Conclusions and Recommendations should be transmitted to each of the Subcontracting Exchanges in Peru, since they are concerned with action which needs to be taken by these Exchanges. The expert has of course already made these recommendations verbally to the counterpart, but committing them to writing is nevertheless the best guarantee that they are properly understood and the best way of ensuring their implementation.

##### 4.1 General Conclusions

Under the heading of "General Conclusions" are grouped a series of reflections made by the expert at the end of the project, which are of interest to all the Exchanges in Peru and are therefore not directed specifically at any particular one. The conclusions in question are as follows:

##### A. On co-ordination

Up to the moment when the project came to an end, there were in Peru two Subcontracting Exchanges formally set up. One of them operates in Lima and has had four years' experience. The other operates in the south, at Arequipa, and has one year's experience. As already mentioned, a third Exchange is about to be set up legally at Trujillo, in the north of the country.

Co-ordination between the three Exchanges is hardly necessary up to the present, but it will become indispensable in the very near future. If such co-ordination is definitely established, it could avoid conflicts which undoubtedly will occur unless there is proper communication between them.

##### B. On financing

The present manner of coping with the annual budgets of the various Exchanges on the basis of voluntary contributions from the institutions promoting subcontracting in Peru undoubtedly constitutes an imaginative, effective and positive solution which has had considerable success during the first period since the installation of these mechanisms in Peru.

The commitment of the institutions, together with the imagination and hard work both of the boards of directors and of their presidents, has

meant that in the end, year after year, the resources needed, both material and human, have been found. Nevertheless the present favourable climate may not last, and the individuals who are today excited about subcontracting may tomorrow be removed from this industrial promotion scene and find themselves undertaking duties in other fields. Thus it seems reasonable to argue that the financing of Exchanges should not depend on the good or not so good will of those who manage or preside over the promoting institutions, but rather on the realization by the country of the importance of subcontracting as an instrument of industrial promotion and a factor in rationalizing investments in productive fixed assets.

**C. On promoting the export of subcontracting services**

Exporting subcontracting services from Peru to the markets of other countries is one of the priority objectives of the Exchanges and a large part of the justification for setting them up. It should nevertheless be remembered that FOPEX during the earlier period, and the Foreign Trade Institute (ICE) today, are the institutions which the Peruvian Government has entrusted successively with absolute jurisdiction in matters of promotion of exports of goods and services regarded as non-traditional. It is therefore, desirable that in this field, promotional activities abroad should be subject to proper co-ordination between FOPEX/ICE and the various Exchanges.

**D. On the stability of the members of the boards of directors**

The reasons which lead the authorities in Peru to establish rotation in delegating tasks to the representatives of institutions are well known. Nevertheless, in the case of subcontracting, and more concretely in regard to the boards of directors of the Exchanges made up of representatives of the institutions promoting them, it would be useful to establish a certain degree of stability, at least for the first few years. The Exchanges are a very new phenomenon. Subcontracting is a mechanism which is making headway, but it is still not widely known. The persons who took part in the preliminary work of setting up the various Subcontracting Exchanges or who have been linked to their management as representatives of institutions, are the ideal persons to become or to continue to be members of the boards of directors of the institutions.

**E. On manning**

The Subcontracting Exchanges are designed as agile bodies, with a flair for promotion and with very small staff numbers. In ideal circumstances, the staff strength of an Exchange in Peru should not be more than five regular staff members. This does not rule out the possibility, when the time comes to create card index systems or bring them up to date, of having recourse to short-term contracts for such investigators as may be necessary. A Director/Manager, a Publicity Officer, a Technical Officer and a couple of Secretaries, well paid and motivated, and with good professional qualifications for their posts, will be more than enough to

cover the staffing requirements of even the most dynamic exchange, likely to operate in Peru over the next few years. In the other cases, a Manager a Technical Director and a Secretary can perfectly well run an Exchange at least during the first few years.

**F. On computerization of Exchange services**

We have argued time and time again that a Subcontracting Exchange can bear abundant fruit without the need for its card index system to be computerized. Nevertheless, microcomputers and computerization in general are readily accessible today, from both the technical and the economic points of view. This being so, it seems desirable that computerization should be installed from the outset. This is not so much because of the contribution it can make to the more rapid and better response to offers, but because by integrating the processing, the statistics, follow-up of the various subcontracting assignments and management of the Exchange as a whole, substantial improvements can be made without the need to increase staff numbers.

**G. On the importance of international subcontracting**

Publicizing the advantages of subcontracting among contracting undertakings in Peru is important, necessary and basic if Peruvian subcontractors are to attain a certain measure of agility in handling such inter-entrepreneurial relations.

As regards the central area, in other words Lima and the constitutional province of El Callao, such action has already been taken, and highly successful results have been obtained. It is desirable that this type of experience should be repeated in the southern and northern areas, in other words in Arequipa and Trujillo, since because the establishment of their respective Subcontracting Exchanges is recent, they have not yet had time for the running-in referred to.

Important though the promotion of subcontracting relationships between contractors and subcontractors in Peru may be, the expert has made it clear that over the long term, the main benefits for the sector, and the reduction of the idle installed capacity of their enterprises, must come from promoting the export of subcontracting services, in other words from strengthening international subcontracting.

At the present time, even though programmed, ongoing promotional activities have not been developed, there is already a natural export flow of subcontracting services from Peru to the other countries of the area and to Central America in the field of vehicle components. Similarly, there is an export flow of ready-made garments, the final destination being the United States market. Certainly, the volume of these exports is modest, but it should not be forgotten that the figure has been attained without any real programme of vigorous, constant promotional activity, exploiting the advantages of subcontracting.

## H. On enterprises affiliated to the Exchanges and their mutual relations

An initial glance may give the impression that the importance of an Exchange is determined by the number of subcontracting undertakings belonging to it. This is a fallacy. What is really important about an Exchange, and hence about the management of the Exchange by its directors is the number of assignments fulfilled by it during each financial year, and the economic volume of the operations finally materializing between contractors and subcontractors.

If no assignments materialize, or very few, the Exchange becomes a body lacking drive and without interest for the entrepreneurial sector. If the economic volume of operations carried out during the financial year is small, we must ask ourselves whether the country really receives an adequate return for the effort put into the creation of the Exchange, and look closely at the costs involved in maintaining it. In spite of this, a considerable number of operations handled by the Exchange, and an acceptable economic level for such operations, are not the only elements defining sound management of subcontracting and ensuring the future of the Exchange.

If we think of contractor undertakings, we can easily conclude that what they want from the Programme for the Promotion of Industrial Subcontracting in Peru is to ensure that none of their assignment requests fails for want of a suitable subcontractor. If this were allowed to happen, the credibility of the benefits and effectiveness of the Exchanges would remain questionable. If we think of the subcontracting undertakings, what they actually hope for from the Exchanges is that they will be given the maximum possible number of assignments to carry out. If we bear this in mind, it might be extraordinarily risky to have too broad a card index of subcontracting undertakings which are affiliates, most of which will not receive a single offer of an assignment over a long period of time, say, one year to be more precise.

### 4.2 Conclusions regarding the Lima Subcontracting Exchange

The Lima Exchange has already had a good run-in as far as the management of subcontracting relations within the domestic market are concerned. The procedure for dealing with inquiries is quite familiar. There is a large card index of subcontracting industries; the mechanical engineering, plastics, rubber and textiles sectors have been covered, and a start has been made with work on the wood sector. Nevertheless, and in spite of the fact that the overall situation can be regarded as good, account needs to be taken of a series of factors which the expert feels require special attention as the technical assistance of UNIDO comes to an end.

### I. On the Board of Directors and the Exchange

It is a well-known fact that the success achieved by an Exchange depends fundamentally on the efforts and the commitment of the members of its board, and the professionalism of the technical team entrusted with its management.

Fortunately, the Board of Directors of the Lima Exchange has consisted of persons who have been involved from the very beginning in the whole of the Pro-gramme for the Promotion of Industrial Subcontracting in Peru. Some of its directors have even had a chance to analyse on the spot the experience gained by certain Exchanges in Spain, France and other countries. All this accumulated knowledge, experience and know-how as to the way in which things have been done since the beginning of the project is of the utmost value. Changes in the personnel of the boards of directors, whether imposed by institutional rules requiring rotation of posts, or for personal reasons, could enable this fund of experience to be lost, so that the progress of the Exchange would be slower and less secure. This does not mean that the new members who have joined or are likely to join the boards of directors of the Exchanges set up are less able than their predecessors. It means simply that since in Peru there are few people who understand subcontracting and Exchange matters, it would seem desirable to maintain those who have seen the mechanism come into being and develop, at least until it is thoroughly consolidated.

## II. On the mobility of technical personnel

As already mentioned, the staff of the Lima Subcontracting Exchange should not be more than five permanent staff members, at least over the short term. A Manager, a Technical Officer, a Publicity Officer and two Secretaries constitute an adequate structure for the purposes intended. During the recent period in the lifetime of the Exchange, its personnel structure has not only not been stable; at times it has been below the level that the needs require. There have been times when the post of Technical Director was not filled, and others when the publicity area was not looked after.

## III. On the number of affiliates

As already stated, the number of industries affiliated to an Exchange is not an indicator of its importance, nor of its contribution to the industrial development of the country or region in which it operates. In the particular case of the Lima Subcontracting Exchange, with 559 affiliates in the mechanical engineering sector, 71 in the plastics and rubber sector, and 76 in that of ready-made garments and textiles, it can be said that it is in a fair position to respond adequately to proposals submitted to it by contractors.

## IV. On the card index systems

The data given in the previous section do not always represent information properly entered in the card index files and used day-in-day-out to deal with the various requests that come into the Exchange. A large batch of questionnaires sent in to the Exchange by the investigators has not yet been put on the cards. This means that in the day-to-day response to requests, the subcontracting firms whose questionnaires have not yet been processed are not taken into consideration.



#### V. On the training of the Manager

The Manager of the Lima Subcontracting Exchange is very well trained technically and is well acquainted with the practical aspects of how to handle subcontracting relations. Nevertheless, from the very beginning of the project, the expert has pointed out time and time again the absolute necessity for the managers of Exchanges to possess or to be given, training in management. Until very recently, and in spite of the constant insistence of the expert, the Manager of the Lima Subcontracting Exchange, had not enrolled in a training course in entrepreneurial management.

Once the initial phase of the lifetime of an Exchange has passed, the technical aspects pass discreetly into the background, while promotion, marketing and other management tools are brought forward as key factors in its success.

#### VI. On co-ordination between FOPEX-ICE and the Lima Exchange

Relations between FOPEX-ICE and the Lima Subcontracting Exchange must necessarily be based on complementarity and hierarchical co-ordination. There is no doubt whatever concerning the role of FOPEX-ICE as a body dealing with the promotion of external trade, and naturally, with international subcontracting. It is equally clear that the Subcontracting Exchanges are technical bodies which can collaborate with FOPEX-ICE in developing this policy of promoting the export of subcontracting services from Peru. Thus far, therefore, we have complementarity. The Peruvian Government has given FOPEX-ICE the responsibility for promoting exports of non-traditional products and services. For this reason, the Exchanges must subordinate their action plans abroad to the directives and programmes to this end emanating from FOPEX-ICE.

#### VII. On the promotion of the Exchange among large-scale foreign assembly plants.

The subcontracting mechanism is a device well known and used not only in Europe but in the United States and Japan. In Peru, there are transnational undertakings which manufacture consumer or capital goods incorporating spare parts and components which can be manufactured under a subcontracting régime. These large-scale foreign contractors, domiciled in our country, are well acquainted with the mechanism of subcontracting and its advantages. Thus they constitute a good training ground for stimulating the Peruvian subcontracting industry.

#### 4.3 Conclusions in regard to the Arequipa Subcontracting Exchange

Arequipa is the economic and industrial centre of the southern area of the country. It is characterized by small and medium industry which is very dynamic and enterprising. Another of the characteristics of the

southern zone, and hence of Arequipa and its area of influence, is that it does not have large-scale assembly plants or sizeable undertakings which manufacture equipment incorporating spare parts or components that can be manufactured on a subcontracting basis. This and other observations have led the expert to formulate the following conclusions in relation to this Exchange:

I. On the subcontracting sectors to be considered

The initial operations took place in the mechanical engineering sector, which has most of the subcontracting undertakings and offers the best possibilities for subcontracting. The hides, leather and footwear industry is fairly important in the zone. Actually, a few small and medium industries in this sector are already working for enterprises at Lima, basically under a subcontracting régime.

II. On the markets for Arequipa subcontractors

The fact that in Arequipa and its zone of influence there are no large-scale assembly plants for products or equipment incorporating spare parts or components suitable for subcontracting imposes a form of management on the Exchange which is different from that required at Lima. The markets for subcontracting at Arequipa are the large-scale assembly plants situated in the central zone or the large public or private companies (ElectroPeru, MinerPeru, Southern Cuper Corp., EntelPeru, etc.) which call for the manufacture of spare parts, items and components for use in the southern zone and frequently manufactured at Lima for lack of knowledge of the existence of suitable subcontractors in the Arequipa zone.

With regard to the possibilities of exporting subcontracting services for the subcontracting undertakings of Arequipa, it must be borne in mind that apart from other markets in the Andean area or on the American continent generally, special attention must be given to those which can be regarded as bound up with the industry of the south of Peru, namely the markets of Bolivia and those of northern Chile. Because of the economic policy actually practised by both countries, there are many undertakings which instead of manufacturing are in the business of importing spare parts and components, or assembling and marketing finished products. It should not be forgotten that in view of the tariff policy of the Chilean Government, and the fact that northern Chile is nearer to Arequipa than to its own capital, Santiago, it is easy to understand that the subcontracting capacity of industry in Arequipa could find a ready market in Chile for its subcontracting products.

In the case of Bolivia, something similar is happening with the item through which the Bolivian mining industry receives its supplies largely from equipment coming from Peru, a country which has developed an advanced industry in this sector. Nor must we forget here that the level of Bolivian reserves could at any moment be a factor making this mercantile traffic difficult. However, the recently-created Peruvian ICE clearly has

a bent for increasing the country's external trade, and for this reason, it has not hesitated to make it clear that it will resort to better where other formulas are not possible.

### III. On the Board of Directors of the Exchange

In the case of Arequipa, everything that has been said about Lima applies. The Arequipa Subcontracting Exchange was born out of the firm conviction of a team of people who represented and in many cases still represent the Industrial Bank of Peru, FOPEX, the Chamber of Commerce and Industry, SENATI, COFIDE and the Association of Small and Medium Industrialists of Arequipa (ASEMIN), and their determination to endow the region with this industrial promotion instrument.

Just as we commented in the relevant "Conclusions" section relating to the Lima Subcontracting Exchange, that the team of people who were in at the birth of the Exchange could continue over the medium term to form part of its Board of Directors, this would be something which could help to achieve more ambitious aims.

### IV. On the technical and managerial team

Once the card index file for subcontracting industries in mechanical engineering - the largest of them all, as we have said time and time again - is completed, the investigatory tasks require less and less effort. On the other hand, promotion work designed to obtain orders from the national contracting industries, or action designed to stimulate the export of subcontracting services to the neighbouring markets mentioned previously, or to other markets, require and will continue to require in the future more and more effort on a permanent basis.

The notion of a part-time manager and a team of two persons for compiling data is something which will need to be thoroughly reviewed. We shall mention this in the "Recommendations" chapter.

### V. On computerization of the data bank

As we have repeatedly stated, a Subcontracting Exchange can be managed with highly satisfactory results without the necessity for its card index system to be governed by a computer. But we have also said that if this working tool is available, it makes for easy management with less administrative personnel - although more highly qualified personnel. The sound sense and the good will of the Industrial Bank of Peru in importing a micro-computer for the Lima Exchange at a given moment might be tapped again in the case of Arequipa. If all the Peruvian Subcontracting Exchanges had their card index systems and their management computerized, and if they also used the same programme, the work of promotion abroad could be substantially improved.

## VI. On coordination with the Lima Subcontracting Exchange and other Exchanges in Peru.

Although the expert has insisted that the Peruvian Exchanges must be independent as regards their budgets and their management, this must not be interpreted as meaning that they must work in an uncoordinated manner. On the contrary, requests for services which cannot be fulfilled at Arequipa because there is no suitable subcontractor, or because the capacity is lacking, or for any other reason, should be channelled towards the Lima Exchange or others that may exist in the country.

The information obtained by the expert during his last mission would seem to indicate that Lima-Arequipa coordination has been fairly good in the past, although at the moment it has been somewhat hampered by the installation of a new Manager at the Arequipa Exchange. It seems reasonable that the new Manager should concern himself first and foremost with local questions. Nevertheless, it is to be hoped that in the very near future he will be able to give special attention to coordination between the Exchanges.

### 4.4 Conclusions concerning the Trujillo Subcontracting Exchange

By the end of the expert's final mission, the Trujillo Subcontracting Exchange was already a reality. The conclusions which the expert would like to formulate at the end of this mission are as follows:

#### I. On the establishment of the Exchange

As the expert has been pointing out insistently, the establishment of an Exchange must be the culmination of a process through which a body of public and private institutions with responsibility in matters of economic or industrial promotion come to realize the importance that subcontracting can have in achieving more balanced and dynamic industrial development. On the arrival of the expert at Trujillo during his final mission, there was so strong a conviction and so favourable a climate for the establishment of the Exchange that advantage was taken of it to speed up the procedure for putting it into operation.

#### II. On the formal constitution of the Exchange

When the expert left Peru at the end of his final mission, the list of institutions which were to make up the Exchange was fully completed, the draft of its constitution had been prepared before a notary, and the statutes of the body to be set up had been drawn up.

Thus in brief it can be said that the only thing missing was the authorization of the promoting institutions to sign the draft constitution, and the agreement of the boards of directors of the institutions, appointing or giving the power to act to the persons due to become members of the Board of Directors of the Exchange.

### III. On the Exchange's technical team

When the expert paid his final visit to Trujillo, the Exchange being set up already had an acting Manager in charge until the end of the present year, and a secretary. With regard to professional qualifications, the expert would like to explain that the acting Manager is qualified in economics and has a knowledge of management, but he had had no technical training, in other words he is neither an industrial or mechanical engineer nor a mechanical engineering technician.

The expert has been insisting constantly that the manager of an Exchange must be doubly trained. First of all he must have a technical training, which is an essential requirement during the first phase of the lifetime of the Exchange, in other words during the period of building up the card index system and making contacts with the subcontracting industries. On the other hand, a manager must have a good training in management affairs, this being an essential condition if he is to impart a strong sense of drive to the Exchange, to promote subcontracting among contracting undertakings, and to go on to export to other countries. The management factor, which may not be decisive for the initial phase in the lifetime of the Exchange, is absolutely essential for the second. Similarly, the training of the manager in the technical sphere, which is virtually a sine qua non for the first phase, is less indispensable for the second.

### IV. On the team of investigators

During his last visit to Trujillo, the expert interviewed and short-listed a team of six possible investigators out of a group of some 15 candidates. All those selected had been trained as industrial or mechanical engineers, and in some cases they also had professional experience gained in business firms.

### V. On the training and briefing of the investigators

The training and briefing programme for future investigators, designed by the expert during his final stay at Trujillo, was basically the same as that put into practice in the case of Arequipa. The only difference was that a few small changes, or rather additions were made, with a view to improving the programme designed in the case of Arequipa.

Basically, the programme consisted of a short course of some two days, given by experts from FOPEX and the Lima Subcontracting Exchange, supplemented by a few practical sessions on mechanical engineering techniques, using machinery and equipment from SENATI at Trujillo. The third facet of the programme consisted of some practical sessions in compiling information from two or three subcontracting industries, with the prospective investigators acting as observers and the person sent from Lima to give the course acting as monitor.

## 5. RECOMMENDATIONS ON THE TERMINATION OF THE PROJECT

### 5.1 Recommendations of a General Nature

This heading embraces a series of activities which the expert feels it essential to carry out for the proper functioning of the project and the normal development of the Exchanges set up in Peru. The recommendations in question are:

#### A. On coordination between Exchanges

To ensure proper coordination between the Exchanges set up, and to provide the Peruvian Government with a spokesman competent to speak on matters of subcontracting, it is necessary to set up a National Subcontracting Commission (or Council). This body need not have legal personality or be provided with a budget; but it is vital that it should represent all the Exchanges in Peru, as well as the general interests of the subcontracting sector.

#### B. On financing

As already mentioned, the financing system is the Achilles heel of the Peruvian Exchanges. Hence it is absolutely indispensable that funds be earmarked automatically, sufficient in quantity and readily available for each one of the Exchanges.

Since there is a hold-up in the approval of the parliamentary Bill on small and medium industry, the expert considers it absolutely essential that a joint document should be signed by the institutions promoting subcontracting in Peru, undertaking to make the same contributions, duly adjusted, over the next three years as they are making at the present time. A document of this nature would further ensure the support of the institutions, even in the event of changes being made in the persons now representing them and fully convinced of the benefits of subcontracting.

#### C. On promoting the export of subcontracting services

To ensure that there is no pretence, and no backsliding, in regard to the promotion of exports of subcontracting services, a division of Labour is called for between the Exchanges and FOPEX-ICE. Precisely because of its basic objectives, it is the duty of FOPEX-ICE to define the strategy for promotion and to design action programmes for promoting the export of subcontracting services from Peru.

In view of the technical nature of the Exchanges, their principal role in international subcontracting should be centred on supporting FOPEX-ICE both by receiving missions of foreign entrepreneurs who could potentially be contractors, and by taking charge of Peruvian pavilions at foreign fairs, where these include a subcontracting stand.

**D. On the members of the Boards of Directors of the Exchanges**

The results achieved by a Subcontracting Exchange are quite closely bound up with the continuity in office both of the technical team of the Exchange and of the members making up its Board of Directors. Bearing this fact in mind, as well as the reflections formulated under the heading of Conclusions, the expert recommends as desirable that in the course of the next two or three years, no changes be made in the membership of the Boards of Directors of the Exchanges.

**E. On manning**

It is absolutely essential that the Lima Subcontracting Exchange should have a Manager, a Technical Director, a Publicity Officer and two Secretaries. A larger manning structure would tend to tilt the Exchange in the direction of bureaucracy. A smaller staff would put a brake on the normal development of the Exchange. The Trujillo and Arequipa Exchanges should have a smaller staff: a Manager, a Technical Director and a Secretary.

**F. On computerization of the services of the Exchanges**

It is desirable that the card index system, statistics and accountancy, the programmes for coping with and following-up assignments, and other control measures, should be carried out with the use of a micro-computer. In the event of the institutions promoting the Exchanges not being in a position to finance them, assistance should be sought from international organisations such as UNIDO, the European Economic Community, etc.

**G. On action to promote international subcontracting**

During the year 1987, as part of a joint programme of action by FOPEX-ICE and the Exchanges, the expert recommends the promotion of exports of subcontracting services from Peru to two or three of its natural markets: Northern Chile, Colombia, Central America, etc., not forgetting the United States. The instruments to be used should be fairs with a strong industrial slant, or salons specializing in vehicles generally, machinery, domestic electrical appliances, etc.

**H. On the undertakings affiliated to the Exchanges**

In relation to contractors and the approaches made by them to the Exchanges, the expert would like to make the following recommendations:

- (a) The time-limit for a reply by an Exchange to an approach from a contractor should not be more than two days unless there are special circumstances;
- (b) No approach should be left pending, not even where the Exchange's card index system does not contain the names of highly suitable subcontractors. Should this happen, those in charge of the

Exchanges should try to answer the inquiry made, seeking assistance from another Exchange within Peru or endeavouring to find an undertaking capable of fulfilling the request, even though normally it does not act as a subcontractor.

In relation to subcontractors, and to the size of the card index system kept by the Exchanges, the expert has the following recommendations to make:

- (i) Some 200/300 affiliates in the case of the Arequipa and Trujillo Exchanges, and some 500/800 for the Lima Exchange, are suitable sizes to ensure efficient management of the Exchange. Once all the processes of the various subcontracting sectors are catered for (mechanical engineering, plastics, rubber, wood, leather, etc.) and a number of affiliates approximating to the above has been achieved, the work of finding other subcontractors should be suspended.
- (ii) Applying the criteria discussed by the expert with those in charge of the Lima and Arequipa Exchanges, each subcontractor affiliated to the Exchange should be given at least one assignment per year.

## 5.2 Recommendations concerning the Lima Subcontracting Exchange

As mentioned at the beginning of section 4.2 of the "Conclusions", the overall results achieved by the Lima Exchange can be regarded as satisfactory. If we compare them with those achieved by other Exchanges with experience over a similar length of time, the verdict would have to be "excellent". Nevertheless, the expert would like to state his view that if certain very specific matters could be worked at, the success achieved would be even greater. It is with this in mind that the following series of Recommendations are made, with a view to pinpointing these matters so as to guarantee much better results:

### I. On the Board of Directors of the Exchange

The Board of Directors of the Lima Exchange has by and large held together well. Nevertheless, we have found that whenever there have been changes in the personnel of the Board, the activities of the Exchange have suffered. Something similar has happened whenever a Director has arranged to be represented by his alternate for more than one meeting of the Board of Directors. To ensure that the cohesion achieved in the Board of Directors of the Exchange is at least maintained and if possible strengthened, and that the experience accumulated by all the Directors is not lost, the expert recommends that for the next two or three years there should be no change in this directing organ of the Exchange.

### II. On the mobility of the technical personnel

Since the staff of the Exchange is small, it is absolutely essential that it should be stable if any real results are to be achieved. In the



case of the Lima Exchange, changes in technical personnel have been frequent. Over a short period of time, Mr. Pedro Tang, the engineer responsible for the technical area, and Ms. Yolanda Salas, the engineer responsible for publicity matters, have left the Exchange to take up posts in other institutions.

On this point, the expert would like to formulate the following recommendations, some of them already mentioned at various times in the course of development of the project:

- (a) The personnel of the Exchange should be above average in professional level, should be relatively well paid, and should feel motivated and stimulated by the work.
- (b) In the event of a vacancy occurring, the person leaving the Exchange should be replaced at the earliest possible moment. It is inadmissible that the Exchange should have to carry on its activities for months on end with no-one in charge of the technical or promotional areas.
- (c) The Manager, the Technical Director and the Publicity Director should be persons with a multidisciplinary training, which means that at a moment's notice, faced by a crisis, each should be in a position to undertake tasks in any one of the three fields mentioned above.

### III. On the number of affiliates

The ideal number of subcontracting undertakings affiliated to an Exchange is the number that fulfils the following two requirements:

- (a) It should adequately cover all the processes in the schedules of the various subcontracting sectors in which the Exchange operates. In the case of the Lima Exchange; mechanical engineering, plastics, rubber, ready-made garments, textiles, and wood;
- (b) It should provide an adequate service to each of the affiliated subcontractors, so that the image they have of the Exchange is a good one and the volume of economic activity actually generated is significant.

In connection with these points, the expert has the following recommendations to make:

- (a) With some 500/800 affiliated undertakings, distributed approximately in the way in which they are distributed today, the Lima Exchange can provide a satisfactory response to any inquiries directed to it. Hence it does not seem necessary to

continue to make efforts to affiliate new subcontracting undertakings.

- (b) With a view to improving the image both of subcontracting and of the Exchange in the eyes of the subcontracting industry, it is recommended that the necessary action be taken to ensure that each of the affiliates receives at least one or two assignments a year.
- (c) Now that some four years have elapsed since the current data bank of the Exchange was set up, it is recommended that thought be given to bringing the card index system up to date, beginning with the subcontracting industries which are the most dynamic and the best equipped in regard to machinery, and which have the best potential for operating in the international markets.

#### IV. On the card index files of the Exchange

The Exchange's card index files must at all times contain information about all the subcontracting undertakings which have been given the questionnaires for compiling information. In the worst circumstances, only the cards relating to questionnaires filled out by the investigators during the previous 10 days or two weeks of work should remain unprocessed.

On this matter, the expert has the following recommendations to make:

- (a) Since in the course of his final mission, he found that some index cards were not in their proper boxes, he suggests that photocopies be made of all the card index files, so that in the event of any card being lost it can quickly and easily be reproduced, without any trouble, from the master file thus created.
- (b) Since the batch of questionnaires filled out by the investigators but not yet entered in the card index files is very important, the expert recommends that special attention be given to the typing schedule, so that the two secretaries between them type up each week the cards relating to the questionnaires handed to them by the investigators. With a view to processing the backlog of questionnaires held up for a long time, it is recommended that a typist be made available to the Exchange and used exclusively for this task. She could easily bring the work up to date within a month or so.

#### V. On the training of the Manager in management

The expert has insisted over and over again on the need for the managers of Exchanges to possess, or to be helped to acquire, training in entrepreneurial management. Since the Manager of the Lima Exchange has recently embarked on a management programme, the expert recommends that he should be assisted in every way, to enable him to acquire training in this field, which is extremely important for the proper functioning of the Exchange. With

regard to the economics of this programme, the expert recommends that the Exchange implement the idea put forward by the director representing FOPEX, namely the organization of an international seminar on industrial subcontracting, through which the funds required to cover the costs in question could be obtained.

VI. On co-ordination between FOPEX-ICE and the Lima Subcontracting Exchange

The expert considers that if the best results are to be achieved in promoting the export of subcontracting services, it is absolutely essential to establish a proper division of labour between FOPEX-ICE and the Exchanges. On this point, the expert recommends that FOPEX-ICE should determine the countries and sectors it is considered desirable to try to enter with a view to exporting subcontracting services from Peru. FOPEX-ICE should also give full institutional support, determining which are the fairs in each country most indicated for the promotion of subcontracting from Peru.

Because of its technical character, the Exchange could make itself responsible for manning the various stands set up at fairs regarded as suitable for promoting exports of subcontracting services from Peru.

VII. On promoting the Exchange among the larger assembly plants

Action to promote the services of the Exchange with the larger assembly plants, both Peruvian and foreign, operating in Peru, is a matter to which not all the effort needed has been devoted. Bearing in mind that the number of assignments handled by the Exchange depends on the degree of awareness created, the information imparted, and the motivation kindled among the contractors, this is a key factor for the healthy development of the Exchange.

On this point, the expert recommends that visits be arranged with those at the highest level of such enterprises (director-general, director of production or logistics, etc.) with a view to explaining to them in detail what the Exchange is, the services it offers and the advantages that would be derived for them if they used the services.

According to the size and importance of the contracting firms in question, the visits should be made by the Publicity Officer, the Manager, or the Manager together with one of the members of the Board of Directors of the Exchange.

5.3 Recommendations concerning the Arequipa Subcontracting Exchange

The overall results obtained by the Arequipa Exchange may be regarded as highly satisfactory. The publicity work prior to the establishment of the Exchange was done in a highly professional manner. The team of people selected showed that they possessed very sound professional and human

qualities. The actual establishment of the Exchange and the tasks of building up the card index system were carried out in record time and with very satisfactory results.

Because of the special peculiarities of Arequipa and its zone of influence, the expert feels called upon to make one or two reflections designed to ensure the permanent, stable development of the activities of the Arequipa Exchange. Here are his reflections:

I. On the subcontracting sectors to be considered

As is usually the case, the mechanical engineering sector is the one which represents the largest group of subcontracting industries. The Arequipa Subcontracting Exchange began with this sector, following the recommendations made at the time by the expert. In order to expand the services to other sectors, the expert recommends that the order of their importance within the industrial structure of the zone should be followed. This would mean following up with leather, and then plastics and rubber.

II. On the markets for subcontractors at Arequipa

The fact that there are no large-scale assembly plants situated in Arequipa or its area of influence means that the policy for promoting the services of the Exchange needs to be different from that designed in the case of Lima. The markets most easily accessible to subcontractors in Arequipa are to be found in Bolivia, northern Chile, the City of Lima and the market made up of the large public and private companies referred to in the relevant section of the Conclusions.

The Recommendations formulated by the expert with a view to penetrating these markets are as follows:

- (a) Active participation in those activities promoted by FOPEX-ICE which have Bolivia as a market of reference. Such activities can take the form of participation in a fair, the organization of a trade mission, or simply the dispatch of documentation and particulars to potential Bolivian contractors.
- (b) A request to FOPEX-ICE to participate in the 1987 International Fair of Santiago, with a view to promoting subcontracting by Peru in general and by the Arequipa area in particular.
- (c) Launching of an active campaign of information and motivation directed both at the mining enterprises and at the large public undertakings (EntelPeru, ElectroPeru, etc.) to acquaint them with the possibility of subcontracting to industries in the zone without having to centralize everything at Lima.
- (d) Finally, an attempt to obtain assignments from contractors situated in Lima and other zones in the country, making use of the comparative advantages offered by the subcontractors of Arequipa.

### III. On the Board of Directors of the Exchange

What has been said about the Lima Exchange under this heading applies also to the Arequipa Exchange; hence the expert recommends that no changes be made in its Board of Directors over the next two or three years.

### IV. On the technical or managerial team

As already stated the team of investigators is made up of two well-trained and highly motivated persons. Since the present time the task of investigation is not that requiring the greatest involvement, the expert recommends that one of the officers should devote his full time to carrying out promotional work, while the other could be responsible for the technical area, in other words completing the card index files and dealing with assignments. Bearing in mind that the activity of the Arequipa Exchange is much less than that of Lima, it would not be justified having a manager as well. Hence the expert recommends that the Board of Directors study the advisability of having one of the two investigators assume the tasks of manager in addition to those mentioned under the previous heading.

### V. On the computerization of the data bank

All that was said about the Lima Exchange in the relevant section applies likewise to that of Arequipa. The expert recommends that the various card index files and such managerial functions as permit this, should be computerized, either with the help of a donation from one of the institutions promoting the Exchange, or through the international organizations.

### VI. On co-ordination with the Lima Exchange and other Exchanges in Peru

Each of the Peruvian Exchanges was designed to be independent in its budget and its management. But it was never envisaged that one Exchange could or should turn its back on the others; they should be properly co-ordinated. Co-ordination needs to be established in all the fields of action of the Exchanges where benefits can be derived for all, and for Peru, without creating any problems for anyone. Purely for information, some of the fields in which this co-ordination can and should be established are indicated below:

- (a) In dealing with potential assignments when the Exchange receiving the request has no suitable subcontractor to provide the service required. In such circumstances the expert recommends that the assignment be passed on with the utmost urgency to the other Exchanges, with a view to seeking a suitable subcontractor in other parts of the country. This practice would be in keeping with the principle laid down above, that no request should be left pending so long as there is any possibility of finding a subcontractor capable of carrying out the task adequately.

- (b) In the case of participation in fairs abroad, when promoted by FOPEX-ICE, in other words national in character. In such circumstances the expert recommends that if the Peruvian subcontracting stand or pavilion is manned by the Manager of one of the country's Exchanges, he should take into consideration the card index files of all the Exchanges (having previously received them from the managers not present at the fair), both when receiving visitors or manning the stand and when dealing with possible assignments from contractors.

Similarly, in the case of matters which cannot be resolved during the fair, the expert recommends that irrespective of who was in charge of the Peruvian subcontracting stand, they should be passed on to FOPEX-ICE, with the request that it send a copy to each of the existing Exchanges.

- (c) With regard to the exchange of experience on day-to-day management, the expert recommends that channels be set up for the establishment of an informal dialogue between the Exchanges. The National Subcontracting Commission (or Council) could be the institutional organ for facilitating this dialogue.

#### 5.4 Recommendations regarding the Trujillo Subcontracting Exchange.

Since the Trujillo Subcontracting Exchange is the last of those designed to be brought into operation during the development of the project, the expert recommends both to the technical team of the Trujillo Exchange and to the representatives of the institutions on its Board of Directors, that they take advantage of the experience of every kind accumulated in the case of both the Lima Exchange and the Arequipa Exchange.

##### I. On the de facto establishment of the Exchange

Apart from minor administrative formalities which have to be carried out by each of the institutions making up the Management Committee - as referred to in the next section - the expert recommends that steps be taken as soon as possible not only for the formal establishment of the Exchange but also for its official inauguration, giving the ceremony all the importance possible.

The presence at the ceremony of the Minister of Industry, Commerce, Tourism, Trade and Integration, and the Presidents of the promoting institutions, and the opportunity afforded by the ceremony to clinch any substantial agreement between contractors and subcontractors from Trujillo or its area of influence, would help to drive home once again the importance of this type of service.

## II. On the formal constitution of the Exchange

To enable the notary to convert the draft constitution for the Exchange into a public legal instrument, and to enable the Board of Directors to be appointed, the expert recommends that each of the members of the Managing Committee should take the necessary steps within his own institution to have the following two items included in the agenda:

- (a) Authorization to take part as an institution in the establishment of the Trujillo Subcontracting Exchange;
- (b) Appointment of the representatives of the institution both to the General Board of Associates and to the Board of Directors of the Exchange. While the representatives of the institutions on the General Board of Associates may be persons professionally active in Lima, the members of the Board of Directors must be residents of Trujillo.

## III. On the Exchange's technical team

During the first phase in the lifetime of the Trujillo Exchange, it should not be necessary to have more permanent staff than a manager and a secretary. With regard to the professional qualifications of the Manager, the expert recommends once again that he should be technically trained (an industrial or mechanical engineer) and also have training in entrepreneurial management or business administration.

In the concrete case of Trujillo, in view of the fact that there is someone temporarily occupying the post of Manager, the expert makes the following recommendations:

- (a) On the assumption that the Acting Manager is confirmed in the post, since he has no basic technical training, it is strongly recommended that an investigator be recruited with some years of experience in the mechanical engineering industry, with a view to ensuring the proper compilation of data from the subcontracting undertakings, and the efficient build-up of the Exchange's card index files.
- (b) If the above assumption should not prove correct, an engineer should be recruited from one of the branches referred to who has been trained in entrepreneurial management or is prepared to undertake such training.

## IV. On the team of investigators

The expert's recommendations on this point are as follows:

- (a) The short-listed candidates whose names were given to the Chairman of the Management Committee should undergo a second test with a view to singling out those best suited to carry out investigation work.

- (b) The number of investigators contracted should be three or four. A larger number might create problems of co-ordination and dispersal of effort. A smaller number might unnecessarily lengthen the time needed for compiling the information.

V. On the training and re-training of investigators

The recruitment of the investigators should be done immediately, once the Exchange has been formally set up. With regard to the programme of training to be given them, the expert recommends that a methodology should be followed similar to that used previously at Arequipa. Thus, officers from the Lima Exchange or from FOPEX would be the ones most indicated to take over the conducting of the seminar referred to under 3.7.2.

Strict theoretical or conceptual training is very important, but when theory is followed up with examples, the learning process tends to be improved. Hence, the expert recommends that advantage be taken of the offer by the northern zone of SENATI and that all candidates for the post of investigators be convened for a practical workshop session where they would be given the opportunity to learn about all the types of machinery used most in carrying out mechanical engineering processes, and the operations which can be performed using each one of them.

With a view to ensuring maximum success in the work of compiling information on the subcontracting industries, the expert recommends also that two or three practical demonstrations should be held involving visits to industries and the filling-in of questionnaires. These demonstrations might be conducted by members of FOPEX or the Lima Exchange specializing in the work of passing on inquiries to subcontractors.