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JPO Regional Meeting Lima, Peru 13-17 January 1986

SUMMARY REPORT
AND
RECOMMENDATIONS\*

Prepared by

Field Reports Monitoring Section Division of Policy Co-ordination

<sup>\*</sup>This document has been produced without formal editing.

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#### 1. INTRODUCTION

Regional co-operation is becoming increasingly intensive. One of UNIDO's principle concerns is to foster such co-operation in the field of industrial development. This creates also the need for more direct co-operation between SIDFAs and JPOs at the field level. In this context, the first meeting of JPOs from the Latin American and the Caribbean Region was held in Lima from the 13 to 17 January 1986. It was organized following the recommendation of the Second Regional SIDFA Meeting for Latin America and the Caribbean held in Mexico City in December 1984.

The objective of the meeting was to analyze how the JPOs could be better utilized in serving UNIDO's activities in the field. Through a dialogue among the JPOs and with the attending Headquarters staff and the local SIDFA, the meeting tried to identify ways and means for JPOs to contribute to the strenghtening of UNIDO's role in the region, its technical co-operation programme and other supporting activities.

Sixteen Junior Professional Officers from Latin America and the Caribbean attended the meeting. The JPOs were at different stages of their assignment. One JPO had completed his two-year contract while 3 were just starting out at their duty station. The majority of the attending JPOs had served about one year at their duty station and were expected to stay at least another year. Six JPOs worked with a resident SIDFA. The remaining 10 JPOs worked under the coverage of a non-resident SIDFA.

The meeting was chaired by Ms. M. Souza, Industrial Development Officer. Field Reports Monitoring Section with active participation of Mr. L. Biritz, Deputy Director, Division of Industrial Operations, Mr. M. Dizy, SIDFA in Peru, Ms. N. Gehart, Industrial Development Officer, Governments and Inter-governmental Organizations Relations Section and Mr. A. Klocke, JPO, Field Reports Monitoring Section.

Mr. Ramirez-Boettner, UNDP Resident Representative in Peru and Resident Co-ordinator of the United Nations Systems' Operational Activities for Development, addressed the meeting on the development of the UN technical assistance and on the role of the JPO in the UNDP office.

The first one and half day of the meeting was devoted to the presentation of each JPO on his/her country of assignment. This facilitated a first exchange of experience among the JPOs and served to establish a common basis for discussion. Following the individual presentations, a discussion ensued on the JPOs' role in promoting UNIDO's supporting activities. The second half of the week focused on the analysis of possible co-operation among the JPOs at the field level and on the relationship JPO/SIDFA, JPO/UNDP and JPO/Headquarters. Regarding the JPO/SIDFA relationship, a special working group was established outside the meeting to develop a set of recommendations.

Two papers were presented at the meeting, one by Mr. Biritz on "Appropriate Technology and Transfer of Technology" and one by Mr. Dizy, on "Regional Programming and Interchange of available Expertise within Projects and Countries".

At the end of the meeting Ms. N. Gehart had the opportunity to speak to the JPOs on National Committees. This was followed by individual briefings on the subject.

The present report is the synthesis of the main points of discussion and of conclusions reached during the course of the meeting.

#### 2. SUMMARY OF RECOMMENDATIONS

## Recommendations for UNIDO Headquarters

- Promotional material should be brief and clearly presented, including instructions on how to use it. When intended for specific use, it should be selective.
- Distribute regularly a list of operational projects in the countries of the same region (including sectorial listing and addition of basic details) and on regional projects related to other regions. A list of pipeline projects from the quarterly reports should also be distributed to all JPOs of the same region.
- Provide a list of training institutions as well as private sector training facilities in the same region.
- Communication should be in the working language of the duty station (including documentation).
- Invitations to meetings, seminars, training courses should be sent well ahead of time because the pouch takes up to four weeks to any field office, and always in the language of the country.
- Budget line MISC should include money for translation service in the country.
- Provide information of backstopping officer (e.g. language ability, replacement arrangement in case of leave).
- Provide prompt information on status of project approvals (SIS, UNIDF, etc.).
- Closer co-operation between CTA and field office; the CTA should be informed from Headquarters that they have to report to the Field Office on administrative matters and preferably all communications have to be channelled through SIDFA/JPO, or at least copied.
- Particular attention should be given to the timing of travel authorizations and similar administrative matters. This also applies to UNDP Headquarters in New York.
- Review of the UNDP/UNIDO agreement on JPO status and duties on the base of the findings of this meeting (see chapter 6).

## Recommendations at Field Level

- JPOs should be totally familiar with the CTA manual and programme advisory note.
- More promotional efforts should be devoted to UNIDO's supporting activities and special programmes.
- JPOs should make efforts to utilize travel funds in order to improve working knowledge and regional co-operation.
- Collaboration and exchange of information regarding common project issues in the region should be strengthened.
- JPOs should counsel each other on the availability of sources of financing projects and on how to tap these sources.
- JPOs should look at field level for bilateral funds available and inform UNIDO Headquarters.
- JPOs should co-operate in identifying suitable experts for projects, particularly among countries with the same language.
- When requesting funding for proposed projects, JPOs should provide all background information and justification as well as the main objectives.

## 3. JPO PRESENTATIONS ON THEIR COUNTRY OF ASSIGNMENT

Following the opening ceremony, the meeting started with the presentations of the JPOs on their country of assignment. The presentations provided the other participants with an overview of the situation of each JPO and established a common ground for discussion. The JPOs were asked to structure their presentation in the following order:

- Overview of the political and economic situation of the country;
- UNIDO/UNDP role in the country;
- projects worth mentioning;
- the JPO relationship to the SIDFA/UNDP/Government/UNIDO.

Summaries of the individual presentations are included as annex 5.

Regarding the working situation of the JPOs, it appeared that all JPOs were attached to the programming unit of the UNDP office if they did not work closely with a resident SIDFA. Depending on the magnitude of UNIDO's programme of assistance in the individual duty stations, some JPOs worked full time on UNIDO projects while others also were concerned with projects of other organizations. Depending on the amount of control exercised by the SIDFA or the UNDP Resident Representative, some JPOs carried project responsibility and were allowed to have contact with the governments while other JPOs worked under close supervision in the UNDP office. According to a poll at the end of the presentations, an average of 60 per cent of the time of the JPOs was dedicated to UNIDO projects.

The following issues were raised during the presentations regarding the daily project work of the JPOs:

- As the working language in Latin America is either Spanish or Portuguese, information and documents which are to be presented to the government should be in the working language of the country. The JPOs have to spend a great part

of their time in translating documents. This can be done only with a limited number of documents. For project documentation budget line MISC should include money for translation service in the country as this is often cheaper and quicker than at UNIDO Headquarters.

- As quick communication between the field and the backstopping officer is essential for effective project delivery, it is necessary for the field office to be continuously informed of the names of the backstopping officers, his/her language abilities and the replacement arrangements in case of absence.
- Many CTAs have a closer relationship to the backstopping sections in UNIDO Headquarters than to the field office. This creates a tendency for CTAs to communicate directly with the backstopping officer so that SIDFAs/JPOs are often by passed. This can lead to confusion and delays particularly in administrative matters. The CTAs should be informed that they have to report to the field office on all administrative matters and that preferably all communications should be channelled through the SIDFA/JPO, or at least copied.
- Information on the status of projects is often communicated to the field office with great delays, or not at all. Some JPOs report that they learned that a project had been approved only upon arrival of the expert. In order to make timely preparations possible, prompt information on the status of projects is essential.

## 4. UNIDO'S SUPPORTING ACTIVITIES

The session on UNIDO's supporting :.civities was introduced by Mr. Biritz, Deputy Director of the Division of Industrial Operations, with a presentation on appropriate technology and the transfer of technology. A copy of the paper is included as annex 6.

Following Mr. Biritz's presentation, the background papers prepared by the relevant sections at UNIDO Headquarters served as a basis for the discussions. Due to the volume of material, the JPOs were asked to study the information outside the meeting. During the meeting, general aspects of promoting supporting activities as well as some special questions regarding the background material were discussed. It was emphasized that with UNIDO-being now a specialized agency, more attention had to be paid to activities which were not directly related to project execution and financing. The JPOs agreed that a greater part of their time should be devoted to the promotion of UNIDO's supporting activities. Kowever it was noted that there are some constraints which limit the JPOs ability to concentrate more on these activites:

- Lack of time is the main limiting factor for the JPOs because only in exceptional cases do they work 100 per cent for UNIDO.
- In several countries a careful process of developing a demand for UNIDO's supporting activities had to be initiated before these activities could actually be promoted.
- The requests for the promotion of supporting activities in the field often do not come with clear instructions.

The following points were put forward:

- Documents sent from Headquarters should be accompanied by short summaries or explanatory covering letters giving guidance about their supposed end-users and purpose.
- Documentation should always be in the main working language of the respective country.
- Documents should include information on how to obtain funds for the supporting activities.
- The promotion of supporting activities should be included in the revised standard JPO job description.
- Invitations to meetings, seminars, training courses, are often received too late; the pouch takes 3 4 weeks to many field offices and, as invitations need to be processed by the field office, background information is needed.

## 5. CO-OPERATION AT THE FIELD LEVEL AMONG JPOS

This point of the agenda was opened by a presentation of M1. Dizy, SIDFA in Lima, on regional programming and interchange of available expertise within projects and countries. A copy of the paper can be found as annex 7.

Mr. Dizy's paper led to a general discussion on how JPOs could improve co-operation among themselves. An ad hoc poll on how many JPOs were involved in project preparation revealed that six JPOs were directly involved and they carried the main workload for UNIDO projects. Three of the JPOs worked with a local SIDFA. The JPOs could co-operate in the following areas:

- information
- project development and implementation
- regional ultilization of experts
- regional planning
- training
- ECDC/TCDC
- regional finance

During the discussions of the above points, the following possibilities for co-operation emerged:

- In order to co-operate effectively, JPOs would need more information on projects of other countries of the same region. Therefore, Headquarters should distribute regularly a list of operational projects in the countries of the same region. A second list should contain listing of projects by sector. In addition to the title of the project the lists should include some basic information.
- Regarding pipeline projects, it was suggested that the list of pipeline projects in the quarterly reports be distributed to countries of the same region.

- To improve the effectiveness of future meetings, the JPOs would like to receive a list of all regional projects implemented by UNIDO inside and outside the region to serve as impetus to identify opportunities for further regional co-operation.
- Collaboration between projects in the sub-regions Central America, South America, the Caribbean should be strengthened to give more support to specific policy elements. Initiatives in this respect are also expected from Headquarters.
- JPOs can co-operate in identifying suitable experts for projects, particularly among count ies with the same language.
- Headquarters should be more flexible in considering the regional aspects of projects and the possiblities for linkages. For example, expert's missions could be linked so that they visit several countries on one trip.
- JPOs would require guidelines on how to approach regional programming in order to co-operate in the development of regional projects.
- A direct interchange of information on training institutions located in countries of the same region was deemed very desirable. Headquarters could foster this exchange by providing regularly a list of training institutions and private sector training facilities in the same region.
- JPOs could advise each other on the availability and on how to tap different financing sources. In this context, the attention of the JPOs was directed to the new Project Development Facilities (PDF) of UNDP. Headquarters could support this exchange by providing information on the availability of bilateral funds and on the priorities of bilateral donors.

Following the discussion on regional co-operation, Mr. Biritz gave an ad hoc presentation on sources of funds.

## 6. THE RELATIONSHIP OF JPOS/SIDFAS

Various JPOs described the work relationship with the SIDFAs as problematic. In the case of JPOs working at a duty station without a resident SIDFA, a number of JPOs felt that they were not actively supported by the SIDFA. This was especially a problem where JPOs working in a UNDP office were given an extra non-UNIDO workload which impaired their ability to effectively promote UNIDO assistance in the country. In some cases of JPOs working under a resident SIDFA, inadequate briefing and guidance upon arrival at the duty station was identified as a problem.

The JPOs agreed that the UNDP/UNIDO JPO agreement, the JPO job description and the SIDFA job description should be revised to remedy these problems. Guidelines for the training of JPOs in the field should be developed and given to the SIDFAs.

A working group was established to draft recommendations on the above points, outside the meeting. Based on the draft paper of the working group the following "Proposal to Strengthen and Improve the JPO Programme" was developed by the JPOs on a consensus basis during the meeting:

#### Proposal to Strengthen and Improve the JPO Programme:

#### Introduction

In theory the JPOs operate within the framework of the existing agreement between UNDP and UNIDO Headquarters. In the field, the degree of its application varies as does the personality of the various "field actors" involved. Thus, apart from giving some suggestions on how to improve the existing agreement, the JPOs suggest that a separate agreement be signed in the field in order to take into account specific realities and to provide a more stable framework aimed at minimizing the impact of the variable "personality" on the JPO's work.

Another important aspect, since the JPOs are junior staff members working under the SIDFA's supervision, they are affected by the lack of clear guidelines on the training the SIDFA should provide to the JPO.

Finally, the paper contains a draft "memory record" in order to better brief the JPOs' successor in the field.

## I. Institutional Framework in which JPOs operate

The JPOs experience the following constraints:

- they are not official representatives of UNIDO at their duty station, both in the case of resident and non-resident SIDFAs;
- they are UNDP staff members;
- they are affected by staffing problems at UNDP offices (shortage of staff or overstaffing).

JPOs suggest to negotiate with UNDP Headquarters the following changes in the annexes 4 and 7 of the document "UNIDO/PC.108, 31 January 1985, JPO Programme Review" (annex 8):

## a) Annex 4, JPO Job Description

DUTY STATION The sentence would read "In developing countries, as assigned, with possibility of travel in region if deemed necessary by SIDFA and/or Resident Representative and/or UNIDO Headquarters, subject to approval by UNIDO Headquarters".

DUTIES AND RESPONSIBILITIES The last sentence would read: "Within this framework his/her duties may include assistance in the following areas."

In the following paragraphs of this chapter the word "assistance" should be deleted.

Regarding the ast sentence of the chapter it would read: "Performance of such other duties which the Resident Representative, the SIDFA or UNIDO Headquarters may assign, primarily in the field of industrial development and in accordance with the specific JPO job description signed in the field by the Resident Representative, the SIDFA and the JPO".

# b) Annex 7, Memorandum of Agreement between UNDP and UNIDO concerning Junior Professional Officers as Assistants to the SIDFA

## Paragraph (h) of Chapter II -- Administrative Arrangements

The following phrase would be added:

"In the case of non-resident SIDFA such a supervision will be delegated at Deputy Resident Representative level".

Paragraph (i) of the above mentioned chapter would read:

"The JPOs will report periodically to UNDP Resident Representative, UNIDO Headquarters and SIDFAs on their activities and work programme for UNIDO: they will also submit, every six months, a performance review report to UNDP Resident Representatives, UNIDO Headquarters and SIDFAs in line with the standard practice applicable to all staff of UNDP. The performance review report contributes to the periodic evaluation of the field agreement on the specific JPO job description".

<u>Chapter III</u> Functions and activities of the UNIDO JPOs as assistants to SIDFAs would read:

- "1. In countries where UNIDO JPOs work under the direct supervision of the SIDFA, they will work exclusively for UNIDO. In countries without a resident SIDFA, while giving priority to UNIDO programmes, the JPO may work on other matters related to industria development at the discretion of the Resident Representative and described in the field JPO job description.
- 2. The functions are described in Annex 4 of UNIDO/PC.108 (Job Description for the Assistant to the SIDFA).
- 3. A specific job description should be signed in the field by the Resident Representative, the SIDFA and the UNIDO JPO".

# II. Draft of the suggested Agreement between Resident Representative, SIDFA and JPO in the Field

When a new JPO arrives at his/her duty station, the SIDFA should visit him/her within a month in order to discuss and sign the specific job description. The latter should include at least the following aspects:

- For an initial period, to be agreed upon depending on the programme, the JPO should be given full time for UNIDO work.
- The distribution of the JPO working time and the content of his/her job according to the following scheme:

a)	UNIDO	Related Activities	Time Percentages (1)
	i)	project administration	Z
	ii)	project identification-design	2
	iii)	pipeline projects and special programmes	Z
<b>b</b> )	Non-U	NIDO Activities	Time Percentages (2)
	i)	project administration (by agencies or otherwise specified)	z
	ii)	country programming	2
	iii)	other jobs (specified)	2

c) The JPOs' responsibilities (signing of letters, telephone contacts, cables, etc.) and the supervision which will be provided according to the UNDP/UNIDO Headquarters agreement.

- d) Facilities provided by UNDP office to the JPO (secretaries, drivers, translations, telephone, etc.). Concerning secretarial services, each JPO should be given at least 50 per cent of a secretary's time.
- e) Timing and content of the performance report (according as close as possible to the above suggested scheme).

The field agreement should be signed by the Resident Representative, the SIDFA and the JPO.

## III. Shortcomings of the SIDFA Programme, its Impact on the JPO Programme and some Suggestions to Improve both Programmes

The main constraints under which SIDFAs operate seem to be:

- too large geographic coverage;
- declining IPF in Latin America and the Caribbean and increasing competition among agencies;
- highly public relations job based on frequent personal contacts.

They imply:

- lack of programming and systematic approach;
- ambiguous relationship between SIDFA, Resident Representative and government officials.

They may affect the JPO because:

- they put him/her in a difficult position between Resident Representative, SIDFA and government officials;

- they keep the JPO in the dark regarding substantive information, particularly when this is obtained through personal contacts which the SIDFA might not communicate to the JPO;
- in some instances, little effort was made by non-resident SIDFAs to establish contacts with his/her JPO.

In order to improve the two programmes within these constraints, the SIDFA should be given guidelines on the training he/she should provide the JPO and the JPOs should feed the SIDFAs with basic information for programming.

The JPOs supported the paper of Mr. D. Mostefai, SIDFA in Dakar, Senegal, on "The Role and Function of JEOs" in which he had developed an outline for JPO training in the field.

(annex 9).

## IV. Suggested Guidelines for the Training the SIDFA should provide to the JPO

Training should be done through:

- a) Provision of information on:
  - Operational details (local institutions, telephone numbers, contact persons, etc.).
  - The country of duty station (up-dating the country profile and similar).
  - Programme and projects: for JPOs with resident SIDFA this implies to inform the JPO on discussions the SIDFA has with government officials, etc.; for JPOs without resident SIDFA, it implies to establish a proper system of communication through periodic telephone calls and visits, copying of cables and letters, etc.

b) Putting the JPOs in contact with government officials and institutions.

In the case of JPOs without a resident SIDFA, the JPO training should be monitored by the UNDP office.

V. Suggested Memorandum to the compiled by the JPO in the Field at the end of his/her Assignment

It should include the following information:

- filing system and list of UNIDO files;
- list of local institutions with contact persons' names and telephone numbers;
- summary of the status of projects;
- list of UNIDO documents;
- administrative matters (what the JPO is entitled to, etc.).
- field agreement concerning the departing JPO.

#### 8. CONCLUSION

On the last day of the meeting, an evaluation was held on its benefits and shortcomings. In general all JPOs felt that the meeting had been very useful although many of them doubted that it would directly improve their working effectiveness. Most of the attending JPOs believed that the meeting helped to improve regional co-operation among themselves. Especially, the opportunity to meet JPOs from neighbouring countries and JPOs who worked under the same SIDFA was very highly appreciated; many of the JPOs had not met before as they had attended different initial briefing courses. Moreover most JPOs received a boost to their morale and motivation when they learned that their fellow JPOs had to deal with the same problems and frustrations.

The presence of Mr. Biritz, Deputy Director, Division of Industrial Operations, was highly appreciated as he was able to answer many technical questions directly. On the other hand, the JPOs regretted that no senior officer from the Programme Development and Evaluation Branch attended the meeting. Since many JPOs are currently directly involved in the preparation of the fourth country programme cycle a direct exchange of ideas and advice from PC/DEV would have been very advantageous.

It was recommended that a similar regional JPO meeting should be held in Africa taking into account the findings of the Latin American Regional Meeting. The results of both the Latin American and the African Regional Meeting should be communicated to all JPOs.

The attending Headquarters staff attributed great value to the open discussions of the meeting. The fact that all JPOs came from the same region made it possible to address some specific regional problems and gave the opportunity for immediate feedback.

The discussions of the JPOs' relationship with their SIDFA and UNDP provided the attending staff of the Field Reports Monitoring Section with an excellent inside view of the realities of the JPO working situation in the field. Despite the similarity of the countries, the working situation of the JPOs differed considerably, largely depending on the nature of supervision. Individual meetings with the JPOs provided additional information about their personal situation and allowed the opportunity for counselling.

In light of the increased co-operation among countries of the same region and the need for UNIDO field staff to work closer together, the Latin American Regional JPO Meeting can be considered a success. Regional meetings provide a forum for the JPOs to exchange experiences and represent an excellent opportunity for UNIDO to influence regional co-operation along its policy directives.

## ANNEX 1

## JPO REGIONAL MEETING

## LIMA, 13-17 JANUARY 1986

## **AGENDA**

## Monday, 13 January

Morning:

Opening of Meeting

Setting-up of drafting committees

Meeting schedule

Paper: Mr. Dizy "Regional programming and interexchange of available expertise within projects

and countries"

Afternoon:

Programme Planning, Evaluation

Implementation

## Tuesday, 14 January

Morning:

UNIDO's supporting activities

- ECDC/TCDC - INTIB/TIES

- National Committees

- Consultants/Expert roster

- NGOs

- Regional/Country/Sectoral Studies

Afternoon:

UNIDO's special programme - System of consultations - Transfer of technology - Investment promotion - Women in development

Paper: Mr. Biritz "Appropriate Technology,

Transfer of Technology"

## Wednesday, 15 January

Morning:

JPO presentations

Afternoon:

JPO presentations

## Thursday, 16 January

Morning:

JPO Programme

- SIDFA supervisory role, SIDFA Programme

- Co-ordination at field level - Communication and reporting

Travel fundsJob descriptions

Afternoon:

Continuation

Discussion of summary and recommendations

## Friday, 17 January

Morning:

Finalization of summary and recommendations

Afternoon:

Round up

Closing of Meeting

## JPO REGIONAL MEETING

## LIMA, 13-17 JANUARY 1986

## LIST OF PARTICIPANTS

## Country of Assignment

Guyana Mr. E. Appiateng Ms. I. Derbolani di Montauto Dominican Republic Mr. J.F. Delahaut Argentina Mr. A. Hofman Honduras Ms. B. Jaretti Cappellato Trinidad and Tobago Mr. W. Kelderhuis Venezuela Mr. W. Mathis Brazil Ms. C. Mayer Peru Ms. E.L. Myllymaki Nicaragua Ms. E. Schubert Mexico Mr. U. Seiler Costa Rica Mr. R. Timmermann Cuba Ms. H. Vadmand Ecuador Mr. J. Van der Nat Barbados Mr. E. Verschuur Haiti Ms. A. Von Monbart Jamaica

## **Headquarters Staff**

- Mr. L. Biritz, Deputy Director, Division of Industrial Studies
- Ms. M. Souza, Field Reports Monitoring Section, Division of Policy Co-ordination
- Ms. N. Gerhart, Governments and Inter-Governmental Organizations Relations Section, Division of Conference Services, Public Information and External Relations
- Hr. A. Klocke (JPO), Field Reports Monitoring Section, Division of Policy Co-ordination

## Pield Staff

Mr. M. Dizy, SIDFA, Peru

## ANNEX 3

#### LIST OF DOCUMENTS

1.	List	of	Participants
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- 2. Agenda
- 3. Message of Mr. Veltzé-Michel
- 4. The Role of the Industrial and Technological Information Bank (INTIB)
- 5. Regional and Country Studies Branch
- 6. Project Personnel Recruitment Section
- 7. Genetic Engineering and Biotechnology
- 8. Regional Meeting for the Initiation of a Regional Network for Microelectronics in ECLAC Region
- 9. UNIDO Technical Assistance
- 10. System of Consultations
- 11. Sectoral Studies Activities related to Latin America
- 12. Training Branch UNDP Resident Representatives Meeting Copenhagen
- 13. Suggestions for Co-operation with NGOs in Developing Countries
- 14. Investment Co-operataive Programme
- 15. The JPO and the Country Focus
- 16. Integration of Women in Industrial Development
- 17. Economic Co-operation among Developing Countries
  - (the 2 documents listed below are only for the countries that participated at the meeting in Brazil:
  - Expert Group Meeting on the Establishment of Multinational Production Enterprises in Developing Countries, Vienna
  - High-level Inter-Governmental Meeting on Co-operation among Developing Countries in the Field of Agro Industry Development, Brasilia )

## Message of Mr. V. Veltzé-Michel to the Second Regional Consultation Meeting for UNIDO JPOs in Latin America

I regret that time did not permit me to be with you, but I am pleased to extend to all and each one of you my greetings and best wishes on the occasion of the Second Regional JPO Consultation Meeting for UNIDO JPOs in Latin America. This meeting is taking place at an opportune time. The process of converting UNIDO into a specialized agency has now been completed. The first part of the Second General Conference of UNIDO adopted the budget of the new UNIDO. It also established the mechanisms of the modalities of co-operation of UNIDO within the UN system, so that it could function more effectively and efficiently in promoting the industrialization of the developing countries.

In light of the recommendations of the IDB and the General Conference, the UNIDO Secretariat will now need to streamline its organizational structure and principles. The Director General is currently engaged in this exercise. We expect that the new structure would be launched in time to give added impetus to the process of accelerating industrialization of the developing countries.

In the new UNIDO, technical co-operation will continue to be the center piece of its activities. SIDYAs and JPOs will continue to play a very crucial role in identifying, developing an monitoring technical co-operation projects in priority areas of need of recipient Governments. It is highly desirable to co-ordinate the efforts of UNIDO/UNDP with those of bilateral and multilateral assistance as well as with the private sector in order to ensure the highest return of the dollar spent on technical cooperation.

The SIDFA programme is currently being evaluated by 2 senior consultants. The findings of this evaluation would enable to improve the programme. The report will be available around May and will be considered by the next Governing Council of the UNDP and IDB. Based on its conclusions we expect to modify the field representation of UNIDO in light of the new status of the Organization. 1986 will be a transition period and changes might enter into effect in January 1987. I look forward to you as JPOs to devote your full efforts to assist your SIDFAs and UNIDO Headquarters in mobilizing resources of both the public and the private sectors and in ensuring its most efficient utilization in technical co-operation programmes. I would like, however, that the meeting considers the following:

In addition to assisting in identification and programming work, JPOs are required to devote time to promote other UNIDO supporting activities, such as the preparation of country regional studies, programmes of transfer of technology, investment promotion and industrial information, national committees, etc.

In the countries of Jatin America where the private sector plays a central role in economic activities, UNIDO's promotional efforts could play a catalytic role in the mobilization of technological and financial resources for industry. UNIDO's technical co-operation may therefore need to create a closer link with the end user, namely the private sector and public institutions related to industrial development, a task which should also be undertaken by the JPOs.

The system of consultation is a further instrument for strengthening crilateral linkages namely UNIDO technical co-operation, public and private sectors.

Of particular interest in the region is the promotion of ECDC/TCDC. There is a wast reservoir of technological and industrial resource within the region that can be placed at the service of individual countries. SIDFAs have already tried to establish specific. TCDC projects and this should closely be followed up by JPOs. Also regional co-operation can take place within the established institutions such as SELA, ANDEAN Group, etc. The experience of Latin America could have a wider application in other regions. UNIDO has been instrumental in promoting projects between some Latin American and African countries, partcularly through the solidarity meetings organized for LDCs.

There is also a need to enlarge UNIDO's roster of consultant companies and experts of the region so that we look forward to the submission of the relevant forms to the Project Personnel Recruitment Section and Purchase and Contract Service.

North/South co-operation is a vital mechanism for facilitating technological and financial resources for the benefits of both groups. UNIDO's investment promotion offices established in the North has been useful in identifying investment projects and resources for the South. Here the programmes of bilateral donors should be considered, especially in cases where there are no funds within the U.N.-System. The exchange of views with bilateral donors in the field is necessary so as to ensure that good projects find the financial resources.

Another co-operation will be sought particularly with the Regional and Sub-regional Financing Institutions with a hope to mobilize additional resources for huge tasks expected of UNIDO in the coming years. Therefore you should also pay attention and report to UNIDO on the activities of the Inter-American Development Bank, CAF, WB, CARICOM, etc. in the industrial sector. This would enable UNIDO to develop co-operation to assist the developing countries in the rehabilitation of existing industries and increasing industrial capacity.

The JPOs as part of the SIDFA programme have helped UNIDO immensely to improve and increase its technical co-operation delivery to the developing countries. I know you all have a challenging task ahead of you and you have every possibility to contribute to the industrialization efforts of the developing countries through individual and collective efforts.

The JPO programme has been one of the most effective means of improving UNIDO's technical co-operation delivery in developing countries. During the second quarter of 1986, we are planning to review the programme in order to modify existing arrangements and to identify means to increase the effectiveness of JPOs in fulfilling UNIDO Headquarters requirements. It is likely that during 1986 a new agreement with the UNDP will be made on the "UNIDO field offices" and the JPO programme will be an integral part of it..

This evaluation will also help us to develop a programmed and systematic recruitment in order to allow overlapping with the JPOs so that the new and the old JPOs will work together for a while before departing the duty stations.

Reporting is one of the most indispensable tasks of SIDFAs and JPOs. Quarterly and annual reports are extremely useful to UNIDO Headquarters. The reports give pertinent information required for formulating policies and guidelines as well as technical co-operation programmes. Furthermore, the reports create a vital communication link between Headquarters and the field. I hope thay you will pay special attention in following up closely the new reporting guidelines introduced last year when preparing your reports.

Your suggestions and recommendations at this meeting could prove useful in the Director General's efforts to introduce new measures to increase UNIDO's technical co-operation activities and also to ensure that in future JPOs will be working full time with UNIDO activities. There is a need for JPOs, especially those who are not with a SIDFA, to maintain close relations with all institutions (private and public) concerned with industries, to visit them periodically in order to maintain UNIDO's presence among the people who could require our services. In the future, JPOs will also report in the Quarterly Reports the visits made to institutions/persons in connection with their duties.

Looking forward to the conclusions of the meeting, I wish you success in your endeavours and in the deliberations of the meeting. I also wish you a successful 1986 in your careers.

#### ANNEX 5

#### SUMMARIES OF JPO PRESENTATIONS

## ARGENTINA - JPO J.P. Delahaut

Fourty-two per cent of the IPF is for UNIDO projects. The SIDFA is situated in La Paz and visits Buenos Aires every 3 months. Due to the small number of international staff (3) the role of the national officers is very significant. The organization of the office includes a strong Programming Unit. The JPO works primarily under the supervision of the Chief of the Unit, a national officer who also evaluates the JPO's work. The relationship with this "block" of national officers is sometimes a little difficult. Institutional changes within the government have affected contacts with the government.

#### BARBADOS - JPO J. van der Nat

In the fourth country cycle, UNIDO will have US dollars 2.5 million of the available IPF. During the present cycle UNIDO's role has been negligible, but for the following cycle a steady rise is foreseen especially in the area of agro-industries and industrial development. Specific projects will be carried out in industrial diversification, infrastructure and investment promotion. The relations with the SIDFA were good although somewhat unstructured. The JPO has good contacts in the UNDP office, but the flow of information could be improved.

## BRAZIL - JPO W. Mathis

The JPO outlined the country's political and economic situation as well as UNIDO's technical assistance in Brazil. The main areas are high technology (e.g. carbon fibres, bio-technology) and quality control (metrology and standardization). There are 6 large and about 10 small-scale projects on-going as well as many TCDC and training activities. The relations JPO/government officials, JPO/UNDP office, JPO/SIDFA are good. Almost 100 per cent of the JPO's work concerns UNIDO matters. Briefing and training by the SIDFA upon arrival of the JPO were inadequate.

## COSTA RICA - JPO U. Seiler

The JPO outlined the UNDP/UNIDO technical assistance in Costa Rica (IPF for the present cycle US dollars 2.5 million). Because of the large volume of aid from other sources and the relatively high standard of living, the UNDP/UNIDO assistance played only a minor role in Costa Rica. Nevertheless, there are possibilities for technical assistance in the industrial sector which should be explored further. Because of the up-coming elections, no decisions of the government could be expected in the near future. The new Minister of Industry should be invited to UNIDO Headquarters as soon as possible.

## CUBA - JPO R. Timmermann

UNIDO's share in the IPF is about 30 per cent. The main projects are in the areas of agro-industries, industrial development, minerals and pilot plants for pulp production. The projects are all headed by national CTAs which are supported by short-term missions of international experts. The JPO devotes 80 per cent of his time to UNIDO related activities. Despite very infrequent contacts to the SIDFA, the JPO describes the relationship as good. He also feels well integrated in the UNDP office. Official contacts with the co-ordinating ministries are good, but even routine matters are sometimes delayed substantially so that supplementary direct contacts are necessary.

#### DOMINICAN REPUBLIC - JPO I. Barbolani di Montauto

The Dominican Republic's IPF was now 6.7 million US dollars with a cost-sharing input of 1.4 million dollars. The JPO pointed out that the percentage of work dedicated to UNIDO was approximately 10 per cent. There was no UNIDO/IPF project on-going, but 2 SIS and 1 UNIDF project. It is expected that an IPF financed project will be approved this year. The JPO is fully integrated in the UNDP office. She has excellent relations with the government which, however, perceives her more as a programme officer of UNDP than as a UNIDO JPO. Most of her time was spent on the computerization of the UNDP office. There had been no SIDFA mission nor briefing opportunity with him despite the JPO's request.

#### ECUADOR - JPO H. Vadmand

The IPF figure for Ecuador is 8 million US dollars for the present cycle of which UNIDO's share is 10-15 per cent. The main UNIDO IPF project in the past cycle was a 2 million US dollars small-scale industry project. The JPO is part of the Programming Section in the UNDP office and enjoys an excellent working relationship. She has considerable liberty while dealing with UNIDO projects. Relations to UNIDO Headquarters were described as sometimes difficult, i.e., replies on telexes were received with great delays and information on the status of projects was often not up-to-date. Relations with the government are very good, but occasionally slight problems arise in cases where UNIDO documentation is received in other than the official language of the country (Spanish).

#### GUYANA - JPO E. Appiateng

UNIDO's share of IPF in the third cycle was about 40 per cent. The preparations for the next cycle have started and the Resident Representative, in agreement with the government and the SIDFA, proposed a programming mission for February. The country has a high economic potential which is largely untapped. Although only shortly in the office, the JPO has established a good relationship with the government and local institutions. The relationship to the non-resident SIDFA was described as good. Due to the fact that the UNDP office is understaffed, the JPO had already various responsibilities in the office. He works in close contact with the Resident Representative.

#### HAITI - JPO E. Verschuur

The JPO had just recently arrived at his duty station. The office has 3 international officers and working conditions are sometimes difficult due to the poverty of the country. UNIDO's activities are concentrated in the field of marble development, agricultural tools and an industrial workshop which is planned for February 1986. Contacts with the SIDFA are non-existent. The relations with the government were described as normally functioning. Due to the political situation and the lack of interest on the part of the government to develop the country and to improve the living conditions of the population, the implementation of a successful UNDP/UNIDO programme will be difficult. There is a need to identify further possibilities of industrial co-operation, e.g. small-scale industry.

## HONDURAS - JPO A. Hofman

With an IPF of 8 million US dollars in the present cycle, the UNIDO share of about 10 per cent is mainly taken up by small and medium industry support projects which will be continued in the fourth cycle by the World Bank on a cost-sharing basis. The UNIDO share in the forthcoming cycle will be between 10 and 20 per cent. Regarding the work situation at his duty station, the JPO stressed that he was very much a part of the UNDP Programming Unit. The JPO pointed out that formally the Ministry of Planning was responsible for technical co-operation, but that the real powers of decision lay with other institutions like the Central Bank and the Ministry of Finance.

## JAMAICA - JPO A. von Monbart

For the third cost-sharing cycle, the IPF has 4.2 million US dollars plus 8.9 million Jamaica dollars. For the fourth cycle, an IPF of 4.5 million US dollars is foreseen with cost-sharing of 10.5 million Jamaica dollars. The main areas of UNIDO activities are handicraft development, bauxite (pilot plant) and packaging. The relations with the SIDFA were described as good. The SIDFA devotes a great part of his time to direct counselling of the government while the JPO manages the office. The JPO is excellently supported by the UNDP office and receives all assistance she needs.

#### MEXICO - JPO E. Schubert

UNIDO's share in the 10 million US dollars IPF is 45 per cent. This represents 11 IPF projects. Additionally 3 SIS projects and 6 regional projects were executed by UNIDO. The JPO indicated that due to the big share of UNIDO participation in the total IPF, she has a very heavy workload with mainly administrative duties. The JPO has good relations with the SIDFA despite him being on mission for five months of the year. She feels well integrated in the UNDP office and has a good working relationship with the Resident Representative. Contacts with the government are satisfactory although some problems with local recruitment of national experts had appeared.

## NICARAGUA - JPO E. L. Myllymäki

The JPO stressed the important role of UNDP in Nicaragua. The IPF figure for industry will go up from 9 per cent to 30 per cent in the fourth cycle. The former Executive Director, Dr. A. Khane, visited the country in March 1985. Nicaragua was also visited by a programming mission in 1985. Only few UNIDO experts were assigned to the country, and so far no SIDFA visit took place. The JPO reported that she had only limited time for UNIDO work, but no problems in dealing independently with the industrial sector and the government.

## PERU - JPO C. Mayer

Peru's IPF is about 15 million US dollars. 1.15 million US dollars had been used for UNIDO executed projects. In 1985, UNIDO had 2 major IPF projects and 4 SIS funded projects. The JPO informed that she works about 40 per cent of her time on HABITAT-related projects. One of the biggest UNIDO projects was the 3 million US dollars cacao processing plant in Tingo Maria. In the case of this project, it happened that the responsible CTA contacted UNIDO Headquarters without passing information to the Lima field office. This led to misunderstandings and difficulties between the CTA and the Lima field office.

## TRINIDAD AND TOBAGO - JPO B. Jaretti Cappellato

The JPO is also covering Suriname and the Netherlands Antilles. For all three countries, the total IPF was 4 million US dollars. In the case of Trinidad and Tobago UNIDO had 18 per cent of the IPF projects. There is presently 1 project which has been extended for 8 years. Due to a heavily staffed office (5 internationals) and the difficult relations with the government the JPO feels rather underutilized. The government is contributing 80 per cent of the finance of projects through cost-sharing. Relations with the non-resident SIDFA are good. In the UNDP office, on-going projects are handled by programme officers and the JPO only has direct responsibility for pipeline projects. The government considers the UN office only as a service organization. Relations with Headquarters were recently strained as during a mission one Headquarters official promised funding when it was not available.

#### VENEZUELA - JPO W. Kelderhuis

The IPF for the country is 5 million US dollars and most projects contain substantial cost-sharing. UNIDO projects cover 10 per cent of the increasing IPF, in the capital goods, small industry and industrial planning areas. In dealing with the government informal contacts at high levels are necessary to push things forward. The presence of a SIDFA is highly recommended to pursue an active link with the government. Although the UNDP office is understaffed, the JPO is not completely involved in the division of labour. It was noted that with the SELA Headquarters being in Caracas, UNIDO SELA co-operation should be pursued involving the field office.

## DEFINITION OF APPROPRIATE TECHNOLOGY AND THE MECHANISM OF TECHNOLOGY TRANSFER

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L.F. Biritz

Deputy Director, Division of Industrial Operations
UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

## I. INTRODUCTION

- 1. Industrial technology is the <u>manufacturing</u> of industrial and consumer materials, products and goods. Its main concern is the industrial manufacturing process and, within its scope, the design and development of (new) products and processes, the development of industrial applications for materials and products.
- 2. In the process of transferring technology, particularly to the developing countries, "appropriate technology" is one of the most important issues from the practical point of view. A methodology for choosing amongst technological alternatives as to which is the most suitable in any given set of circumstances is essential. Without such a methodology the selection of technology to be applied becomes haphazard, based upon dysfunctional criteria.
- 3. No coherent methodology of this type is available. Even in the industriclized countries severe losses by major enterprises are known as a result
  of mistaken technological choices, mistakes made in spite of the companies'
  expertise in similar technologies and access to highly-qualified technical
  consultants. In the developing countries a technological innovation will
  often founder for lack of a singly factor which is taken for granted in the
  industrialized countries. Thus it is of the highest priority to extend the
  understanding of the factors which affect the outcome of technological
  innovations in the developing countries in order to reduce the uncertaintie:
  faced by decision-makers in these countries.
- 4. Errors could be overcome if the methodologies for choosing and implementing technologies were sufficiently complete. The choice of technology itself has to take into consideration a host of social implications apart from mere cost-benefit analysis such as the unemployment situation, the level and range of skills available, environmental and attitudenal response both by workers and the community, need of decentralised activities and so on. The purpose of this

paper is therefore to identify the criteria for defining appropriate technology as it relates to industrial production processes and to establish the basis for an eventual methodology for defining appropriatness in each specific case and situation before an industrial plant is erected.

## II. CRITERIA OF APPROPRIATE TECHNOLOGY

- 5. The word "appropriate" means nothing unless it answers the specific question "appropriate as to what". Generally speaking, a technology is appropriate when it satisfies four basic conditions imposed on it, which are:
  - 1. The purely technological constraints and parameters (i.e. raw materials, energy availability, climatic conditions, etc.).
  - 2. The limitations posed by the <u>ability and know-how of the operating</u>
    <u>personnel</u> to practice the technology (i.e. it is not too difficult
    or complicated for the staff and workers to handle).
  - 3. It conforms to the <u>economic requirements</u> under which it has to operate (i.e. it is competitive within its environment).
  - 4. It conforms to the <u>prevailing socio-political environment</u> (i.e. labor intensive versus capital intensive, safety and environmental requirements, etc.).

It should be noted that the conditions for "appropriatness" change constantly, and a technology that was appropriate yesterday, may not be today. Each of the above basic factors consists of and can be broken down into further elements, which have to be all considered when a feasibility study is being preapred or before a final decision and commitment is made.

## A. Technological Sub-parameters

- 6. The main technological sub-parameters are:
  - (a) the <u>appropriatness of the product</u> in conjunction with the <u>application</u> for which it is intended and its <u>social acceptability</u>.
  - (b) availability of raw materials and energy for manufacturing the product.
  - (c) complexity of the manufacturing process.

## B. Availability of Qualified Operating Personnel

7. The availability of qualified operating personnel to run the factory efficiently is a most important consideration in case of the developing countries when the transfer of a particular technology is planned. (This is not so in the industrialized countries where availability of qualified operating personnel can be usually taken for granted.) The availability (or non-availability) of qualified manpower will have a strong effect on the choice of manufacturing technology where such a choice is possible.

## C. Economic Parameters

- 8. Economic parameters and expectations need to be precisely defined as this factor will also greatly influence the selection of the most suitable technology:
  - (a) the plant is expected to make a profit on its own;
  - (b) the plant is to be subsidized at least for some period of time;
  - (c) the plant is to make mainly a social contribution to the country, with profits being of secondary importance.
  - (d) the plant is to produce for the international markets (under competitive conditions);
  - (e) the plant is to produce for the internal market only (import substitution);
  - (f) the plant is to produce for export as well as for home consumption.
- 9. Economic parameters will have an influence on the technology itself, on the size and location of the plant (economies of scale, close to market. etc.) and on the choice of technology (i.e. capital versus labor intensive; high degree of automation versus manual operations, etc.).

## D. <u>Socio-Political Factors</u>

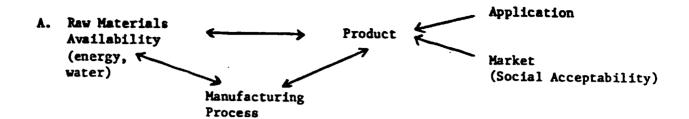
10. The various socio-political factors are the most complex ones to consider and to define, as these relate directly to the relationships between different segments of society. Some of these are:

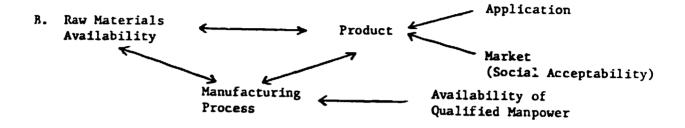
- (a) need for labor intensive industries (to create more jobs);
- (b) geographical location (to create jobs in outlying areas);
- (c) environmental considerations (e.g. air and water pollution);
- (d) labor-related social considerations (i.e. noise, dirt, unhealthy and dangerous working conditions, night shift requirements, etc.).
- ll. As a rule it can be stated that almost always and the exceptions are rare socio-political constraints are detrimental to direct economic benefits (i.e. profits) that can be expected from an industrial enterprise. This does not imply, however, that overall social or indirect economic benefits could not be positive. This is a very complex and difficult issue to deal with and should be covered during social cost-benefit analyses. A particular technology might be appropriate from the economic but not from the socio-political point of view and vice versa. In all cases, however, the technology has to be appropriate as regards the purely technological considerations, as this is a primary prerequisite for applying a technology successfully.

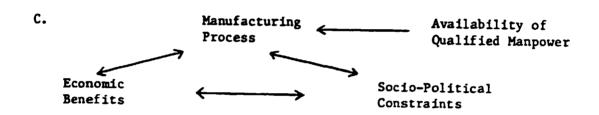
#### III. INTERRELATIONSHIP AMONG THE FACTORS GOVERNING APPROPRIATE TECHNOLOGY

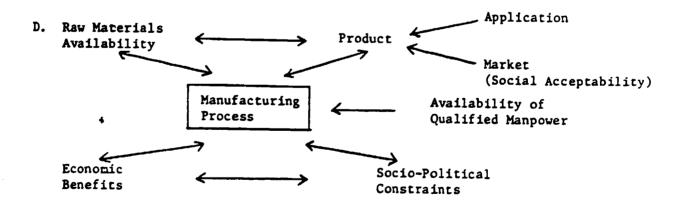
- 12. Of the four major parameters defining appropriate technology, one, namely the availability of qualified manpower, is specific for developing country conditions. The other three technological, economic and sociopolitical are of universal applicability and form a triangular interlocking relationship where a change in one will cause a change in the others, whereby manpower availability putting a limitation on the level and sophistication of the manufacturing process to be employed. These relationships are depicted on the attached figure on the next page.
- 13. A semi-quantitative correlation between the three main factors technological, economic and socio-political determining appropaite technology can be formulated as follows:

## INTERRELATION OF FACTORS INFLUENCING APPROPRIATNESS OF TECHNOLOGY









E. 
$$E_b \approx \int \frac{T_{fc}}{S-P_c}$$

E<sub>h</sub> = Direct economic benefits

T<sub>fc</sub> = Freedom of choice in technology selection

 $S-P_c = Socio-political constraints$ 

The direct economic benefit (i.e. profit) that can be expected from an industrial plant is directly proportional to the freedom in selecting the technology and inversely proportional to the socio-political constraints imposed on it.

- 14. It is obvious from the above that appropriate technology can be only defined for a single industrial plant and operation and is not directly applicable to another installation somewhere else, even if it is an identical factory. By placing the same plant in another location, at least its economic parameter will be changed (e.g. different shipping cost) and probably have a different socio-political environment as well (e.g. different labor costs). Reasonable generalization is possible when defining the appropriate product in that there are similar application criteria in many developing countries.
- 15. Another important point is that each manufacturing technology has to be broken down into its individual "unit operations" (i.e. separate operational steps) as each should be evaluated for its appropriatness on its own ("unpacking of technology").
- 16. It is not enough that a technology is appropriate at the time the plant goes on stream, but it should remain appropriate for as long as possible. As technology progresses and the economic and socio-political environment changes, it also renders existing technologies and individual manufacturing plants obsolete, which is another way of saying "not appropriate", be it for economic, technological or other considerations. The definition of appropriate technology is, therefore, a continuing and never ending process for industry and its management, and its very survival depends on it, be it in the industrialized or the developing countires.

#### IV. ELEMENTS OF TECHNOLOGY TRANSFER

17. Technology transfer can be defined only by its results, i.e. the transfer of a specific industrial mnaufacturing technology can be considered successful only if the technology is practiced and applied with local staff as efficiently and well at its now location as at the location of its origin.

- 18. The entire technology transfer process has three basic elements:
  - (1) access to information and know-how regarding the technology, which again fall into three categories:
    - (a) licensing of patent rights:
    - (b) access to or licensing of not patented or published, internal know-how;
    - (c) information available freely from literature and other published sources.
  - (2) access to capital:
    - (a) investment capital
    - (b) operating capital
  - (3) absorption of the technology: training and development of operating staff and personnel to practice efficiently the specific technology involved.
- 19. As regards the above three basic elements of technology transfer the following comments give further clarification:
  - (1) (a) information obtained through <u>licensing of patent rights</u> is of relatively small importance for the developing countries as it relates mainly to modern, highly advanced technology (e.g. petro-chemicals, electronics). Also, licensing patents does not provide operational know-how, rather it only gives right for using the technology.
  - (1) (b) information gained from <u>licensing of internal know-how</u> is very important not only for the developing but also for the industrialized countries. (It is worth mentioning that of ... license fees paid worldwide, about 90% is for such internal know-how and only 10% for patent rights.)
  - (1) (c) information <u>freely available from literature</u> and other published sources is of greatest relevance to the developing countries. Most basic industrial manufacturing technology is well and thoroughly described (i.e. foundry technology, sulphuric acid manufacturing, garment making, furniture manufacturing.

brick making). The problem is that many of the small and medium size industries in developing countries do not even know that such information exists or is not available in their mother tongue.

- (2) access and availability of capital does not require comments since nothing can be manufactured without equipment.
- the absorption of the technology by the local staff and personnel is the most important element of all technology transfer undertakings. Basically technology transfer is the transfer of know-how and experience (not of basic knowledge). Once the local staff is fully capable of practicing the technology at the level required for meeting quality and efficiency standards, the technology is in its true sense transferred.

### V. PRACTICAL CONSIDERATIONS REGARDING TECHNOLOGY TRANSFER

- 20. Looking at the three basic elements of technology transfer information, capital and absorption of technology it becomes clear that the difficulties will be different for various industrial sub-sectors when transferring technology. Some generalizations can be made in this regard which are as follows:
  - (a) in case of modern, advanced, highly specific technologies access to information can be a major problem (e.g. petro-chemicals, electronics, computers, pharmaceuticals).
  - (b) In case of the major process industries (petro-chemicals, steel, aluminum, cement, sugar, fertilizer), the critical issue is frequently the availability of capital, which is usually very large due to required economies of scale.
  - (c) The absorption of the technology is perhaps the greatest problem in industries where a very large number of highly specialized personnel and technical staff is required (e.g. engineering industries, cqpital goods manufacturing, etc.). Because of the large number of specialists needed and the length of training required, it can

pose "generation problems" in the developing countries, even if sufficient funds are available for acquiring and transferring the technology involved.

#### VI. CONCLUSION

21. For successfully transferring industrial technology from the developed to the developing countries, the technology has to be appropriate on the one hand and the transfer process must be carried out effectively and efficiently. This means that even if the technology is appropriate, problems still can be encountered through poorely executed transfer process (e.g. inadequate provision for trianing). On the other hand, even if the transfer process is efficient, the result will be a failure if the technology is "inappropriate". This is why the issue of appropriate technology and technology transfer go hand in hand and must always be considered in a coherent, integral manner to achieve the desired results.

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#### ANNEX 7

## REGIONAL PROGRAMMING AND INTER-CHANGE OF AVAILABLE EXPERTISE WITHIN PROJECTS AND COUNTRIES

JPO REGIONAL MEETING IN LATIN AMERICA
AND THE CARIBBEAN

Lima, 13 - 17 January 1986

Marino Dizy SIDFA, Lima

## REGIONAL PROGRAMMING AND INTER-CHANGE OF AVAILABLE EXPERTISE WITHIN PROJECTS AND COUNTRIES

#### 1. Latin America current economic crisis

One of the most important problems faced by Latin America today is the magnitude and structure of its foreign debt. For many years, Latin America maintained foreign debt levels that were apparently adequate to its Gross National Product (GNP) and exports levels. Without a doubt, the foreign debt did not pose a threat to the economic development or stability of the region, but contributed to finance its growth.

By the end of December 1983, the total debt of the region reached \$310 billion. This figure is equivalent to 3 1/2 times the value of Latin American regional exports and actually it is the largest foreign debt for any region of the world.

In any event, the magnitude of this debt appears to be disproportionate to these countries' ability to pay. Given Latin America's Gross National Product and export values, the magnitude of the foreign debt has reached dangerously high levels. Moreover, over the last five years this region has been experiencing unfavourable terms of trade and reductions and even outflows of capital which reduce the payment capacity of the region.

#### 1.1 The financial crisis

The conditions referred to above would appear to lead to default by the debtor nations. Indeed, the borrowing countries need to generate substantial net foreign exchange earnings to amortize their debt. Unfortunately, the current unfavourable terms of trade conditions tend to reduce the value of exports, and the outflows of capital further reduce the foreign exchange earnings available to amortize the foreign debt.

#### 1.2 Current remedies to the crisis

Various efforts have been made to find a permanent solution to the crisis. The economic authorities of the Latin American countries, the International Monetary Fund, and the international commercial banking community have tried to co-ordinate efforts in order to find an adequate and permanent solution to the problem.

The criteria that have prevailed at the IMF consist of a set of prescriptions to the debtor countries. They include reductions of imports, reduction of government expenditures, and liberalization of trade.

#### 1.3 Evaluation of current policies

In general, the problem with the application of these policies is that they tend to create a liquidity mirage that is perceived by everyone as beneficial. Nevertheless, the secondary effects of these policies are so disastrous that they actually end up increasing both the default and maturity risk of the lenders. The Latin American countries are being forced one by one to reduce imports and increase exports to generate additional foreign exchange liquidity that would allow them to service their foreign debt.

Nevertheless the production structure of the Latin American countries in the last thirty years has been experiencing substantial transformations that make it dependent on imported resources. Therefore a reduction of imports will cause immediate contraction with a consequent reduction of output and exports due to the close linkages of inter-related industries in their overall production structure. This chain of events has created the most severe recession experienced by the Latin American countries since the 1930s. On the other hand unemployment in the area is very severe and may be reaching the limits of social tolerance.

#### 2. Trade equilibrium in the region

At the Latin American Economic Conference in Quito early this year the countries of the region agreed to establish a number of measures that will increase trade amongst themselves at the expense of countries from outside the region particularly through subregional trade organizations such as the Andean Pact, ALIDE and others with particular emphasis on agro-industry and capital goods.

In fact several countries have by now gone too far in their reduction of imports and tariff barriers or outright prohibition of imported goods. These measures have been applied indiscriminately to countries from inside and outside of the region alike.

The only way to increase co-operation when there is such strong pressure on the achievement of equilibrium in the balance of payments of individual countries is by establishing a trade matrix between countries in a way that the sum of the value of imports and exports for any given country is close to zero.

Many of the Latin American countries at subregional levels compete between each other and in foreign markets with the same products, while importing capital goods which are mainly manufactured outside the region.

The first step required to increase trade, enlarging the possibility of a balanced trade off between countries, is to obtain homogeneous products regarding quality and price that may compete in equal terms in the international market.

#### 3. Trade equilibrium requirements in industrialized production

Apart from a few countries in the region with up-to-date metrology and quality control establishments, the lack of these facilities in most countries is the most serious factor to obtain manufactures or agro-industrial products of a quality accepted by the international market.

Many of the countries in the region also have to undergo heavy imports of food products which could easily be produced by themselves and exchanged through regional trade. Without quality control and specialization, it will be very difficult for these countries to compete in the capital goods market. Up-to-date technology and an effort to train managers in modern administration of factories and marketing is a necessary complement.

The cost of providing technical assistance across the board for the benefit of all Latin American countries in these areas with the present lack of funds invites the creation of ingenious schemes with great synergy and imagination.

#### 4. Integrated technical assistance at regional level

The present scarce resources for technical assistance could best be deployed if the assignment of funds to projects is suggested both in terms of the country and regional requirements in such a way that a fruitful exchange of expertise within the region could take place which would reduce considerably travel costs and man/months required to achieve the technical assistance objectives.

The reduction in costs may be estimated at anything between 30 and 60 per cent depending on the type of project and the timely programming of available resources. On the other hand, such a system will require the strengthening and some increase in the resources of the SIDFA offices to do the extra planning and programming required, but the additional cost will be small in comparison to the greater number of projects and activities that could be executed by UNIDO in Latin America.

#### 5. The experience in the Pacific Coast

The countries of Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela could very well constitute an excellent area to initiate such a plan of integrated assistance, and indeed in the last three years a certain adaptation of UNIDO projects to the common objectives of these countries has taken place.

Due to the similar development of these countries in certain areas of industrial and agro-industrial production it has been possible to combine synergetically the activities of several experts in different countries and to initiate TCDC activities at the same time.

The following projects could be mentioned in this context as being susceptible to an integrated treatment in the delivery of UNIDO technical assistance:

- (i) Capital goods in Venezuela, Colombia, Ecuador and Peru. Currently there are ongoing projects in this area in the first three countries and Peru is expected to start soon.
- (ii) Copper bacterial lixiviation in Chile, Peru and Bolivia. There are currently two projects under negotiation in the first two countries.
- (iii) Modular timber bridge construction. There are projects now approved in all countries except for Colombia and Venezuela which will be joining the technology later on.
- (iv) Wine production is currently being improved in Bolivia, Chile and Peru with possible extension to Ecuador, Colombia and Venezuela.

(v) Technical assistance to agro-industrial production export-oriented activities, in the areas of food and furniture production for export, are taking place in Peru, Ecuador and Bolivia.

#### 6. Administrative procedures

In order to make good use of available expertise, some changes in the administrative procedures of UNIDO will have to take place in order that experts could move from one project to another in different countries and under the same contract as far as the relation UNIDO-Expert is concerned.

The present situation does not allow for this new approach to increase the efficiency of UNIDO technical assistance delivery. In a recent case more than 38 cables were interchanged in order to schedule the activities of an expert under three contracts for projects in Bolivia, Ecuador and Peru and yet a delay of one month was still incurred in the technical assistance schedule.

In order to plan these combinations, it is important that SIDFAs, as is the case in other executing agencies, could engage non-specified experts to prepare an overall plan for similar projects operating in different countries.

Recently a UNDP team has been analyzing the possibility of the national airlines providing free tickets on flights with spare seats in order to reduce the cost of TCDC programmes. This together with the establishment of a computer roster of available experts in the region could provide the necessary breakthrough for TCDC activities in the region.

Finally, when experts move within a region, the counterparts have to take over the direction of their projects for short periods of one or two months and the evaluation of their capacity and training can be done much more efficiently and at a considerable reduction in the cost and time of the technical assistance required.

#### ANNEX 8

#### Annex 4

#### UNITED NATIONS DEVELOPMENT PROGRAMME

## UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION UNDP/UNIDO

#### JOB DESCRIPTION

POST TITLE

Assistant to the Senior Industrial Development Field Adviser, SIDFA (Junior Professional Officer, JPO).

DUTY STATION

As designated, with possibility of some travel in region if deemed necessary by SIDFA and/or UNDP Resident Representative, subject to approval by UNIDO Headquarters.

DURATION

Initially one year which may later be extended to a second year upon the SIDFA's request, the recommendations of the Resident Representative and the SIDFA with the agreement of the Junior Professional Officer and his sponsoring Government. In exceptional cases, a third year may be approved.

DUTIES AND RESPONSIBILITIES

Subject to the overall supervision of the UNDP Resident Representative, under the general guidance of the SIDFA and in accordance with the rules and regulations of UNDP, the JPO will be expected to assist the SIDFA in the performance of such duties and responsibilities as are outlined below. Within this framework, his/her duties may include the following:

- assistance in the elaboration and formulation of projects to be executed by UNIDO;
- assistance in the preparation of the industrial background papers related to the establishment of the UNDP Country Programme and its periodic revisions;
- assistance in the preparation of documents for projects, included in the Country Programme and those financed by SIS or any other source for UNIDO execution:
- assistance in the evaluation of progress made by ongoing UNIDO projects;
- assistance in the preparation of regular correspondence with UNIDO Headquarters on programme and project implementation;
- assistance in the preparation of periodic progress reports on UNIDO field activities;

- assistance in follow-up with Government officials on selection of experts, clearance of proposed lists of sub-contracting firms, as well as nomination of candidates for fellowships or other UNIDO training programmes;
- assistance in follow-up with Government officials and with Headquarters on matters involving operational and projected UNIDO projects;
- assistance in installation of new UNIDO experts, and in the organization of UNIDO staff members' visits;
- co-operation with UNIDO experts, and assistance to sub-contracting firms implementing UNIDO projects in the country, when applicable;
- periodic reporting to UNIDO headquarters in accordance with the existing reporting requirements, as requested;
- performance of such other duties which the Resident Representative, the SIDFA or UNIDO headquarters may assign, primarily in the field of industrial development;

## QUALIFICATIONS AND EXPERIENCE

- A solid academic background at the post graduate level in economics, industrial engineering, public/business administration etc., or relevant demonstrated professional experience;
- Initiative and sound judgement; ability to organize work and to co-operate in harmony with local and international staff members in the Resident Representative's office;
- Fluency in English essential. In addition an excellent knowledge of French or Spanish is necessary when one of these languages is the official language of the country of assignment.

#### Annex 7

# MEMORANDUM OF AGREEMENT BETWEEN UNDP AND UNIDO CONCERNING

JUNIOR PROFESSIONAL OFFICERS
AS ASSISTANTS TO THE SENIOR INDUSTRIAL DEVELOPMENT FIELD ADVISERS

#### I. Generalities

UNDP and UNIDO have, since 1972, been operating a special Junior Professional Officer programme to provide Associate Experts (hereafter referred to as UNIDO JPOs) to function as "Assistants to the SIDFAs". It has been agreed that, regardless of whether financial contributions to the Junior Professional Officer programme are made to UNDP under its general JPO agreements with donor countries, or directly to UNIDO, the modalities of this programme shall be consistent with those which apply to the collaboration between UNDP and UNIDO with regard to SIDFAs, including the exchange of letters of November 7 and 30, 1977, between the Administrator of UNDP and the Executive Director of UNIDO.

#### II. Administrative arrangements

The terms of employment of the assistants to the SIDFAs will be governed by the agreements concluded between UNDP or UNIDO and donor Governments on the provision of Junior Professional Officers. They will be governed by the 200 Series UN Staff Rules. The following arrangements will govern the administration of the UNIDO JPO Programme.

- (a) The establishment of posts for UNIDO JPOs will be based on a consensus between UNIDO and UNDP.
- (b) UNIDO will keep donor countries abreast of vacancies as they occur.
- (c) UNIDO will make the necessary arrangements with the Governments for the selection of potential JPO candidates through interviews.
- (d) UNIDO will suggest the candidates for specific openings to UNDP which in its turn will clear these candidates with the Regional Bureaux and the field office concerned.
- (e) The appointment of the candidates will be initiated by the Divisions of Personnel of UNDP or of UNIDO, as the case may be, depending on whether the requisite funding is provided by donor countries to UNDP or to UNIDO.
- (f) UNDP will be responsible for the personnel administration of the UNIDO JPOs funded by it in the same manner as for other UNDP field staff.
- (g) UNIDO will train the JPOs prior to their departure for the designated duty station at UNIDO Headquarters. UNDP will be consulted on this training programme and will be given an opportunity to participate in it. (See short description of the Training Course as given in Annex I.)
- (h) The UNIDO JPOs will be responsible to the UNDP Resident Representative, but direct supervision over them will be exercised by the SIDFA covering the particular countries in which they are stationed.

- (i) The JPOs will report periodically to UNIDO Headquarters on their activities and work programme; they will also submit Performance Review Reports to UNDP, in line with the standard practice applicable to all staff in UNDP; copies of these reports will be made available to both UNDP and UNIDO.
- (j) Requests for the extension of UNIDO JPO contracts will be submitted to Governments on the basis of a consensus between UNDP and UNIDO.
- (k) UNDP or UNIDO, as the case may be, will directly approach donor Governments with a request to deposit the necessary funds into its contributions account for all the administrative expenses, including salaries and remunerations, travel to duty station and home leave, etc., as well as 12 per cent overhead costs.
- (1) Overhead costs will be shared by UNDP and UNIDO on the basis of 6 per cent each.
- (m) UNIDO will finance the duty travel of JPOs from funds assigned by UNDP to UNIDO on a pool basis from the travel allocations received from each donor country. UNIDO will provide accounting on its utilization. It is of course understood that the ultimate authority for approval of such travel will rest with the UNDP Resident Representative.
- (n) Terms of employment for JPOs administered by UNDP are attached as Annex III. Although this document has been specifically prepared for JPOs working directly for UNDP, its provisions, <u>mutatis mutandis</u>, in the light of Annexes I and II, also apply to the UNIDO JPOs.

#### III. Functions and activities of the UNIDO JPOs as Assistants to SIDFAs

Based on consultations between UNIDO and donor Governments, it was agreed that the UNIDO JPOs as Assistants to SIDFAs will primarily deal with aspects of Industrial Development.

The functions are described in Annex II (Job Description for the Assistant to the Senior Industrial Development Field Adviser), (SIDFA). In addition, UNIDO may request the JPOs to undertake specific ad hoc assignments in relation with the activities and work programme of UNIDO.

Signed	<del></del>	Signed	
	B. Morse		A. Khane

#### ROLE AND PUNCTIONS OF JPOs (as seen by a SIDPA)

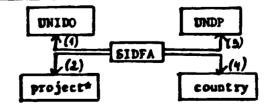
#### 1. UNIDO's activities in the coverage country:

Activities	Content	Comments
WELTATITED		Comments
1. General advisory and programming services:	- general and informal advisory services on industrial issues	- through different informal contacts and meetings with officials
	- assistance for the preparation and management of the country programme	- 5 years cycle - specific to the country
2. Technical assistance		
Bervices:	- formulation, execution, monitoring and evaluation of specific TA projects	- different sources for financing (IPF, SIS, RB,) - national or regional projects - generally, specific to the coverage country or sub-region
3. Other activites - consultation systems - expert meetings - fellowships/workshop - other programmes i. e. IDDA technical adv.	- to be specified in each case services	- largely managed by Beadquarters - not limited to the coverage country
- technical and industri		
- representation and par	rticipation	1
to different meetings		}
	1	

MB: Mecessary to take into account other activities not related to UNIDO (cf.2)

\* Presentation made by Mr. D. Mostefai, SIDFA at Dakar/Senegal at the JPO Training Course, November 1985

#### II. The position and functions/activities of the SIDFA's office



\* It should be noted that SIDFA/JPO's activities related to a project are quite different when there is not a CTA for this project (work load beaver both on substantive and administrative matters).

## 2.1. Some basic principles:

- A loyality to coverage country/UNDP office/UNIDO
- B bermonization of (1), (2), (3) to basic objectives and needs of the coverage country
- C Clearness of (1), (2), (3), (4)
- D Efficiency of the operatives (support and back up for)

## 2.2. Functions/activities of the SIDFA office

(see following page)

#### SIDPA's office activities

_					
	General advisory, progr. services	Technical assistance projects	Other UNIDO related activities	non UNIDO related activities	
UNDP	evaluation of UNIDO	- identification of new projects - assessment of project opportunity - monitoring/management of financial/adm. matters - regular information on project execution - preparation of TPR review	- info. and briefing UNIDO office Res.Rep and officers - monitoring/management of fin./adm. matters	The Ree. Rep. may request SIDPA/JPO to take in charge some specific operations for which they are advised to have some specific expertise (i. e. energy projects, gen. planning) In this case:	
		and project evaluation	- Info. and assistance to UNIDO HQs for the formulation and	- information of UNIDO MQs - same duties as for a UNIDO executed project	
	view of most promising	<ul> <li>advice on and review of of project formulation (with specific emphasis on country priorities, needs,</li> </ul>	implement. and follow-up of these activities.		
	ctor. - review and discussions	conditions systematic follow-up and reporting on project im-	- information, sensi- bilisation of country officials on these activities.	MB: particularly relevant to JPO's programme since in different UMDP offices Res. Reps consider that JPO's training calls for	
Country	- participation at the country programming exercise - substantive advice (when requested) to senior country officials	- special attention to in- put delivery (counterpart consultants agreement,) - co-ordination with officials to improve project implementation	- follow-up of actions to be undertaken	a broadening of their ecopes of activities	
	- use of all available expertise to perform above mentioned duties	- preparat. of consultants intervention (docum.meeting - briefing/debriefing - substantive support - adm./material back-up	Idem n)	1dem	
		- project monitoring			
	15%	55%	20%	5%	

#### Some comments

- 1. One should always insist on the fact that an absolute transparence of relationships with UNDP-office, UNIDO, country officials and consultants must exist at any time. Of course, the levels and details of information/reporting are different but basic facts must be known by all.
- 2. General advisory/programming activities should not be limited for the country programme preparation (a 5 years cycle): it should be considered as a continuous and dynamic process.
- 3. Even if the duties to be performed are the same for all countries (residence and other coverage countries), it is impossible to follow activities with the same attention. For other coverage countries, attention is mainly focussed on country programming, project formulation and monitoring.
- 4. Three points are most important for project efficiency:
- 4.1. Always keep in mind that SIDFAs/JPOs essential duty is to serve (UNDP office, UNIDO Headquarters, country officials, consultants and project teams) in order to increase UNDP/UNIDO programmes efficiency.
- 4.2. Project formulation must always be reviewed by SIDFA/JPO (in collaboration with country officials/backstopping officers) to ascertain project adequation to the country needs/priorities/specific conditions.
- 4.3. A special care should be given to some duties which may be considered as routine or minor ones: i. e.
  - expert agreement- (a project may be fully jeopardized if some inputs are not delivered on \*ine).
  - preparation of experts/consultants/UNIDO Officials missions: documentation data, appointments, ... (without an adequate and on-time preparation a mission particularly short term ones may easily be a failure.
  - Responses to BQ requests (information, documentation,...): be sure to answer quickly and comprehensively.

#### III. The SIDFA and the JPO: what is expected from a JPO?

#### 3.1. The constraints and the problem

JPO objectives

- to get field training
- to perform professional duties

- high personal potential

- Bow to match these different constraints?

Field activities characteristics

- substantive duties are advice-oriented and consequently require a large experience.
- the range of SIDFA's office duties is wide: it starts from very administrative/routine activities; it ends to advising ministers on industrial policy issues

#### 3.2. What we tried to avoid in Senegal

- The JPO becomes "specialized" for bandling administrative matters.
  or
- The JPO becomes responsible for substantive matters under a very loose supervision of the SIDFA who will devote himself to policy matters.

#### 3.3. What is being tried in Senegal for the JPO's professional insertion:

lst phase	2nd phase	3rd phase
	Professional duties	
How to get professional attitudes/reflexes:	How to get some experience on substantive matters:	Bow to monitor a project
the substantive matter is less important than professional attidudesacquaintance with existing procedures - development of specific procedures for routine matters*	one ides under consideration is to work as "a part-time sub-consultant" on a proj. **	of the SIDFA, the JPO

#### General familiarization

- participation to the office activities (TPR, indepth evaluation .. )
- visits/readings
- meetings with experts/officials
- some specific "training" task (project formulation, consultant evaluation ....)
- i. e: expert clearances/mission preparation/fellowships/training courses/procurement/budget revision/development of multi-propose data/documentation systems.
- in agreement with a CTA, the JPO may carry out a specific task for a project in order to assist the CTP (but this may not be always possible and it is necessary to deal with specific cases depending upon JPO's qualification and training on one hand and the UNIDO programme on the other hand.)

D. Mostefai/ab SIDFA, Dakar/Senegal 21 Movember 1985