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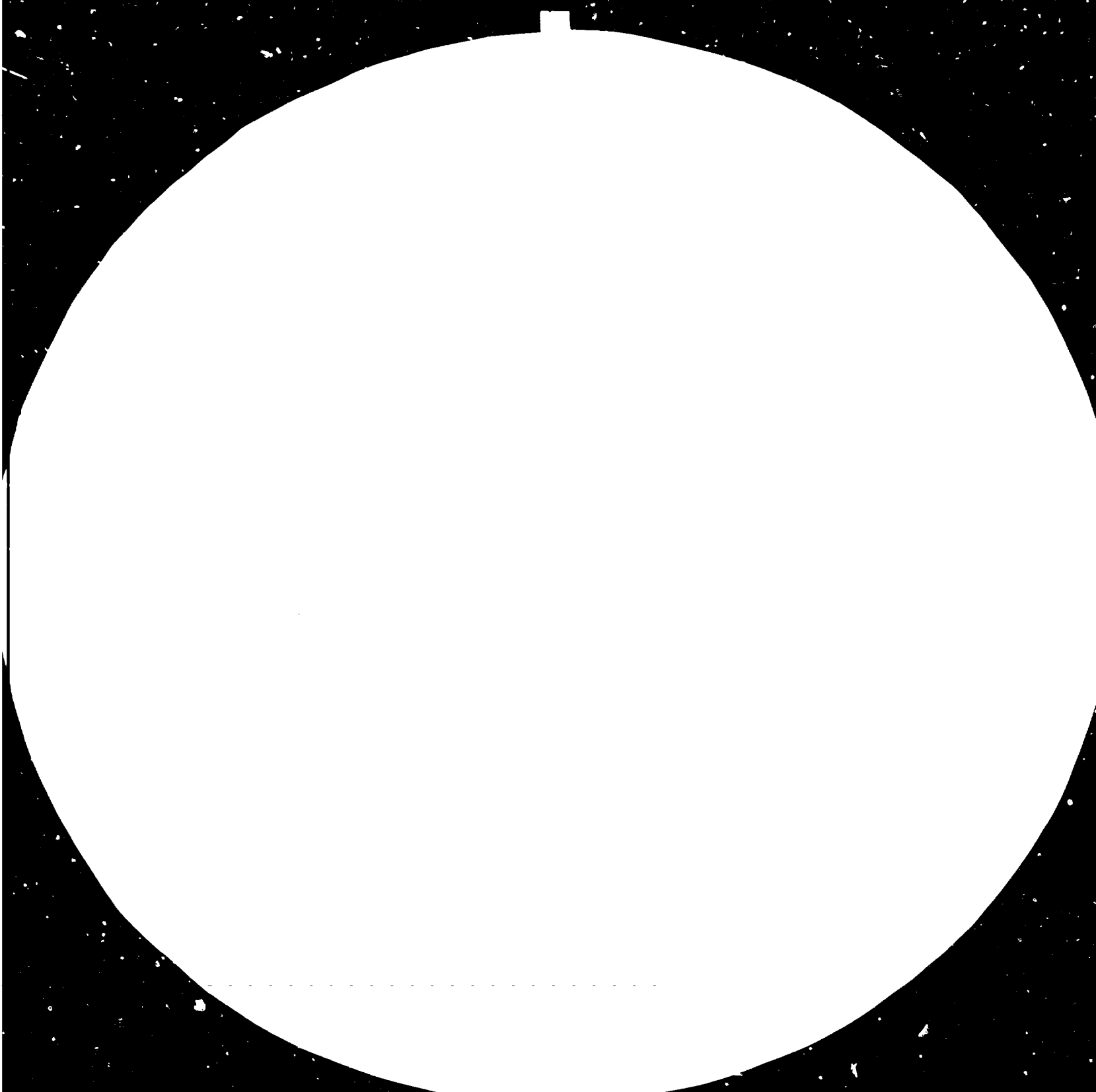
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MICROGRAPHIC RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS

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APPROXIMATE TEST CHART NUMBER

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ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE . /

DP/PAB/80/013

REGIONAL ARAB STATES

Technical report*: Preparation of Project Document
and Implementation Programme

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

Based on the work of Aleksander Soltan,
expert in packaging

United Nations Industrial Development Organization
Vienna

1287

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TABLE OF CONTENTS

	<u>Page</u>
EXPLANATORY NOTES ON THE ACRONYMS USED IN THE REPORT	3
I INTRODUCTION	4
A. Project Background	4
B. Official Arrangements	7
C. Objectives of the Mission	8
II RECOMMENDATIONS	9
III DUTIES PERFORMANCE ACCORDING TO THE JOB DESCRIPTION	10
IV ACHIEVEMENT OF THE MISSION OBJECTIVES	12
V FINDINGS	15
VI MAIN CONCLUSIONS	17
 <u>APPENDICES</u>	
1 Consultant's Job Description	19
2 Implemented Programme of the Mission	22
3 Draft Project Document - Establishment of the Arab Regional Packaging Centre	25
4 Summary of the Visits to Arab Countries	91
5 Minutes of the Joint AEDC-UNDP/UNIDO-IMEC Meeting, held in Casablanca, 23 and 24 September 1982	111

EXPLANATORY NOTES ON THE ACRONYMS USED IN THE REPORT

AIDO : ARAB INDUSTRIAL DEVELOPMENT ORGANIZATION
(former IDCAS), based in Baghdad, IRAQ

ARPAC : ARAB REGIONAL PACKAGING CENTRE

NACP : NATIONAL ARAB COMMITTEE FOR PACKAGING

ASMO : ARAB STANDARDS AND METROLOGY ORGANIZATION
based in Amman, JORDAN

IMEC : MOROCCAN INSTITUTE OF PACKAGING, Casablanca

OCE : ORGANIZATION FOR EXPORTS COMMERCIALIZATION,
Casablanca

UNEP : UNITED NATIONS ENVIRONMENTAL PROGRAMME

ABSTRACT

Project Title : Establishment of the Arab Regional Packaging
Centre

Project Number : RAB/30/013

Purpose of the Project : To accelerate development of packaging
industries in Arab countries.

Objectives of the Mission : To assess the state of affairs in the ten years
efforts of the Arab countries to develop
regional co-operation in the field of packaging,
to evaluate IMEC as the basis for the future
regional packaging centre and prepare a Project
Document for the large scale UNDP/UNIDO technical
assistance project.

Duration of the Mission : Eight months

I INTRODUCTION

A. Project Background

1. The growing awareness of the Arab countries of the importance of packaging in the national economy resulted in calling by IDCAS the First Arab Regional Consultation in Cairo, March 1973, under the auspices of UNIDO.

The recommendations of that meeting stipulated unification of efforts towards the development of packaging industry in the region, creation of specialized packaging centres/institutes and national packaging committees in each country and, what was the most significant and unique on the international packaging scene at the time, creation of a regional packaging centre.

2. Consistent follow-up of these principal findings further developed the idea of regional co-operation. As a consequence National Arab Committees for Packaging (NACP) were organized in a number of Arab countries and the first packaging centre in the region was established by the Government of Morocco called further on the Moroccan Institute of Packaging (IMEC).

3. Regarding development of the Arab Regional Packaging Centre (ARPAC), subsequent meetings of the Arab National Committees for Packaging were gradually identifying the concept, scope and structure of the Centre:

(a) The second NACP meeting in Alexandria, October 1975, requested IDCAS to prepare a comprehensive study on the creation of the Centre.

(b) The Document was submitted and evaluated at the Third NACP meeting in Casablanca, October 1977, based on which it was recommended that the centre shall be created in Morocco.

The formula was also adopted, according to which the Moroccan Institute of Packaging being still a national body, shall offer services to all Arab countries (provided that IDCAS and UNIDO assist the Institute in terms of experts and equipment) and later on shall be converted into the Arab Regional Packaging Centre.

Furthermore, the meeting requested IDCAS to prepare the draft statutes and the convention concerning the formation of the Centre and to organize a constitutive assembly to adopt the convention and proclaim its creation.

(c) At the Fourth NACP meeting in Beirut, May 1980, the draft convention was approved and IDCAS was entrusted to take necessary steps towards ratifying the document.

The document also approved the "Mid-term programme to develop packaging industry in Arab countries" outlining activities as well as the budget and requested IDCAS and IMEC to co-operate in its implementation, with the assistance of the UNDP and the Arab Development Fund.

The follow-up committee was formed to assist IDCAS in fulfilling its tasks, consisting of the representatives of Iraq, Jordan, Lebanon and Morocco, the latter acting as a secretariat for the committee.

4. The AIDO Follow-up Committee met in August 1981 in Rabat to consider the mid-term programme document and the measures to be taken towards the establishment of the Arab Regional Packaging Centre. The committee suggested to supplement the mid-term programme with the following activities:

- (a) Establishment of the Industrial Design Centre at IMEC to train specialists from Arab countries.
- (b) Establishment of the Documentation and Information Centre at IMEC, closely linked with the similar centre at the AIDO Headquarters in Baghdad.
- (c) Organization of packaging exhibitions to increase exchange of knowledge and experience in this field among the Arab countries.

The committee also revised the four years budget proposed by the NACP Beirut meeting and suggested to postpone construction of the pilot plant until the Arab Regional Packaging Centre is fully established.

Finally the committee recommended that the implementation of the project would start by the end of 1981 with the preparatory phase assisted by the UNDP, aiming at identification of the needs of the Arab countries in the field of packaging, ascertainment of their support to the project in kind and in cash, as well as formulation of the detailed project activities. The committee took note of the acceptance of the project by the Governments of Iraq and Morocco.

5. The Governing Council of the Arab Industrial Development Organization, AIDO (former IDCAS) met in Baghdad, September 1981. The council, consisting of the ministers of industry of the member countries, took the following decision:

- (a) To approve the recommendation of the Third NACP meeting in Casablanca to create the Arab Regional Packaging Centre in Morocco.
- (b) To approve the draft "Mid-term programme to develop packaging industry in Arab countries" in the form presented by AIDO.
- (c) To request AIDO to prepare the detailed programme of action and to present it at the next council's meeting in Saudi Arabia, October 1982.

6. The most recent action taken at the regional level with regard to the ARPAC was the meeting of the AIDO Governing Council in Taif 26 to 27 October 1982. The council adopted the following resolution:

- (a) To approve the "Mid-term programme for packaging development" as contained in the presented draft Project Document, to be implemented by AIDO and IMEC.
- (b) To request AIDO to allocate necessary funds for the first two years of project operation.

By this resolution, the council reconfirmed the decision taken at the previous meeting in Baghdad, September 1981 concerning establishment of ARPAC and approval of draft conventions.

7. In order to materialize the recommendations a preparatory assistance document was approved by UNDP on 14 September 1981, which defined ways and means of implementing them and preparing grounds to launch a large-scale project aiming at the establishment of ARPAC.

The main task of the consultant was to evaluate existing facilities and conditions of establishing ARPAC and to prepare the relevant project document.

3. Official Arrangements

The mission was carried out as a component of the Preparatory Assistance Phase RAB/30/C15/A/01/37 : "Establishment of the Arab Regional Packaging Centre".

The consultant entered the field on 21 April 1982, after being briefed at UNIDO Headquarters, Vienna, by Mr. W. Moreira-Dias, Senior Industrial Development Officer, Agro-Industries Branch, Division of Industrial Operations. In Casablanca the mission activities commenced with a visit to the Moroccan Institute of Packaging IMEC and a meeting with the counterpart, Mr. Abdelhaq Bennouna, Director-General.

The objectives of the mission and the current state of affairs regarding decisions and recommendations of AIDO as well as Arab National Packaging Committees (NACP) related to the establishment of ARPAC, were reviewed. The programme of the mission was also discussed and presented on the next day to the UNDP Resident Representative in Rabat. During the meeting with Mrs. M. Hlass, Resident Representative and Mr. E. Dierckx De Casterlé, Deputy Resident Representative, the mission programme and the consultant's duties were examined and agreed upon (III refers).

The consultant's office was installed at the IMEC premises and all required administrative assistance was provided. The mission was very well taken care of and supervised by both the IMEC counterpart, Mr. A. Bennouna, Director-General and Mr. E. Dierckx De Casterlé, UNDP Resident Representative a.i. in Rabat to the full satisfaction of the consultant despite the considerable time and work pressure. Thanks are also due to the IMEC staff for co-operation and assistance in fulfilling the consultant's duties. Upon the recommendations of the second Joint AIDO-UNDP/UNIDO-IMEC meeting in Casablanca, September 1982 (Appendix 5 refers), the consultant's mission was extended for two months to enable the preparation of the final draft of the Project Document after the AIDO Governing Council meeting in Taif (26 to 27 October 1982).

The consultant carried out his activities according to the mission programme (Appendix 2 refers) and left the field on 12 December 1982.

C. Objectives of the Mission

The objectives of the mission, as stipulated in the Preparatory Phase Document RAB/30/C13 were to identify and evaluate the physical and organizational conditions existing in Morocco and constituting the basis for the establishment of ARPAC, assess the needs and priorities of the Arab countries in the field of packaging as well as their support to the project, and finally, to prepare the draft Project Document for a large-scale regional project.

These objectives did not fully coincide with the consultant's duties as envisaged in the Job Description (Appendix 1), therefore it was necessary to rectify them in the context of the approved Project Document for the preparatory phase and the programme of action agreed upon between UNIDO and IMEC on 19 March 1982 (Mr. A. Kayalar's note for the file of 26 March 1982 refers).

In the light of the above, a rectification of some of the consultant's duties outlined in the Job Description appeared to be necessary in order to ascertain the implementation of the mission in a given time.

Due to the two and one-half month's delay in the consultant's fielding, points 2 and 3 of the duties, as outlined in the Job Description (relevant to p.2 of the Immediate Objectives in the Project Document DP/RAB/30/C13) i.e. the carrying out of a survey on the packaging industry in Arab countries and the working out of a unified plan for the development of this industry - was obviously not feasible. Furthermore it seemed that this task should be one of the main objectives of the future Arab Regional Packaging Centre and would need ample time and substantial expertise inputs for its implementation. However, this objective has been partly implemented in the framework of Preparatory Assistance Phase, as envisaged in the Project Document (Job Description 11-04/B.31.7.E and 11-04/C.31.7.E refer).

In fulfilling his main duties - numbers 4 and 5 of the Job Description (relevant to the Immediate Objectives, numbers 3, 4, 5, 6 and 7 of the Project Document), the consultant utilized as much as possible, the existing sources of information on the packaging industry in the Arab countries, i.e. the reports presented at the Third Conference of the Arab National Packaging Committees in Casablanca (October 1977). Present status of packaging industry and the need for its development was also partly assessed during the visits to selected Arab countries.

II RECOMMENDATIONS

The following recommendations are made, aiming at the development of the packaging industries in the region and the establishment of the Arab Regional Packaging Centre:

- (a) Heavy food losses taking place in the countries of the region caused by inadequate protection of agricultural produce and processed foodstuffs, as well as growing requirements of foreign markets regarding the preservation of quality and presentation of goods compel to place packaging function on a high priority level in the development of the national economy.
- (b) Improvement of packaging techniques should primarily be carried through by means of building up the countries' own expertise and industrial potential, utilizing local human and material resources. For that purpose, closer co-operation of Arab countries in the field of packaging is being sought under the auspices of AIDC.
- (c) As the regional focal point for this co-operation, the Arab Regional Packaging Centre is proposed, being the institutional framework which would guarantee co-ordination, and monitoring of the activities of the member countries.
- (d) In order to accelerate and stream-line the process of establishing ARPAC and avoid unnecessary costs by building the institution from scratch, an existing packaging institute could serve as a basis to start regional activities. To fulfill this role, IMEC has been chosen as the only fully fledged packaging institute in the region, with the concurrence and full support of the Government of Morocco.
- (e) It is recommended that ARPAC is established and developed gradually, the target date being the end of 1985 and that regional activities in the field of packaging would start in 1985, based on the Mid-Term Programme adopted by AIDC.
- (f) The project shall be implemented with the assistance of the United Nations Development Programme and for that purpose a draft Project Document has been prepared as Appendix 3 to the report.

III DUTIES PERFORMANCE ACCORDING TO THE JOB DESCRIPTION

(a) To become familiarized with the structure and technical resources of the Moroccan Institute of Packaging in terms of personnel and equipment, and with the aims, plans and studies already carried out on its conversion into the Arab Packaging Centre.

Analysis of IMEC as a basis for regional activities has been carried out by the consultant and outlined in Section E, Part II of the draft Project Document (Appendix 5). IMEC, established in 1973, entered in full operation in 1979 with UNDP/UNIDO assistance, and its activities cover all major areas of the field of packaging. Out of sixteen professional staff members, nine are engineers and seven technicians, many of them were granted UN Fellowships. IMEC laboratories are equipped with modern testing instruments and machines, adequate for carrying out research and testing also on a regional scale.

The plans to create the future ARPAC on the basis of IMEC emerged as early as October 1977 at the Third Meeting of NACP in Casablanca and from that time subsequent meetings and missions were undertaken with the assistance of UNIDO to study in depth the concept and modalities of establishing ARPAC. These efforts culminated in launching the UNDP project RAB/80/C13 "Establishment of the Arab Regional Packaging Centre" - Preparatory Assistance Phase, the component of which is the present consultant's mission.

(b) The carrying out of a survey of the present situation of the packaging industry in selected countries in the region in terms of supply and demand of packaging materials and packages and of the available raw materials and appropriate technology for the local or regional production of packaging materials. This task as described above obviously could not be fulfilled for the reasons described in the Objectives of the Mission. To achieve this goal six surveys are planned in the project activities (page 51 - draft Project Document refers), two of which are to be carried out during the Preparatory Assistance Phase : carton packaging and plastics packaging. The latter survey is under implementation by the UNIDO consultant, Mr. Allen Jones, who entered the field on 15 October 1982 for three months. At the time of writing his report,

the consultant was half way through his mission, having visited Jordan, studied all available information sources, familiarized himself with the Moroccan packaging industries and started preparing the report. Consultant on carton packaging is still being under recruitment and is expected to start his assignment towards the middle of January 1983.

The rest of the sectoral studies are supposed to be implemented from April 1983 to April 1984. They will be followed by the basic study aiming at the assessment of consumption of packaging materials and containers in the Arab countries in the years 1985-1989, which would form a basis for programming the development of the regional packaging industries.

(c) To ascertain the availability and need of national and regional expertise which would be required for the implementation of the abovementioned programme, as well as the type and extension of technological support services which should be granted by ARPAC and existing or forthcoming national packaging institutions.

The needs for national and regional expertise were identified during the first three months of the mission by means of the evaluation of IMEC's existing manpower as compared with the mid-term programme of developing regional co-operation in the field of packaging and also by means of the visits to selected Arab countries, carried out in May and July 1982. Technological support services to be rendered by ARPAC and national packaging bodies are shown in the Project Activities (Section G of the Project Document refers). Availability of national and regional expertise was also partly identified although this task is included in the work programme of the project.

(d) To prepare a project document for the large-scale project which will follow the present preliminary assistance, bearing in mind that an essential part of it will relate to the establishment of a computerized information and documentation unit. This task absorbed most of the consultant's time and was the most crucial aspect of this assignment. Three versions of the draft Project Document were subsequently prepared : the first one discussed at the Joint AIDO, UNDP/UNIDO, IMEC meeting (30 June to 2 July 1982 in Casablanca), the second one reviewed at the Joint Meeting in September 1982 and submitted to the AIDO Governing Council's meeting in Taif, October 1982 and the third one rectified according to the results of both meetings and submitted to UNDP and UNIDO in November 1982 for further processing. In drafting

the Project Document emphasis was put on the development of information and documentation services on a regional scale. This project component was studied in depth by Mr. Samir Elsayad, UNIDO consultant, during his split mission to Casablanca (February - May 1982). In his work, aiming at the regionalization of IMEC's Documentation and Information Department, the expert identified prospective users, types of information needed, objectives, activities, evaluation of existing facilities and necessary inputs. Results of his work were helpful in formulating the draft Project Document.

(a) To give ad hoc advice to the counterpart on the other matters regarding IMEC's activities, including evaluation of expert candidates, preparation of programmes of the seminars and the study tour, briefing the experts for the posts RAB/80/C13/11-01 and 11-04/C, preparation of the mission programme for the latter, the working out of packaging theratics for the Regional Food Canning Congress at IMEC, etc.

IV ACHIEVEMENT OF THE MISSION OBJECTIVES

Taking into account the delays in starting the implementation of the preparatory assistance project, as well as necessary rectification of the consultant's job description, all the immediate objectives of the mission were achieved.

(a) Structure and technical resources of IMEC were assessed and evaluated.

(b) A cycle of surveys of the different branches of packaging industries in the region has been started, and will be continued within the mid-term programme outlined in the Project Document.

(c) Preparations for working out a unified plan for the development of new or existing packaging industries in the selected countries in the region have been made by means of programming sectoral surveys and the recapitulating study envisaged in the project activities.

(d) Availability and the needs for national and regional expertise to implement the project have been identified and outlined in the Project Document as well as type of technological support services which should be granted to IMEC/ARPAC.

(e) The draft Project Document for the large-scale project (Appendix No. 3 refers) has been prepared in co-operation with AIDO and UNDP/UNIDO.

As far as the whole preparatory assistance phase is concerned, most of the immediate objectives have also been accomplished, although certain delays in the implementation were inevitable.

(1) Technical problems existing in packaging industries have been examined through the sectoral surveys, and visits to selected Arab countries and consultations with factory managers, representatives of the Governments on the ministerial level as well as of the industrial chambers and federations. This assessment served partly as a basis in formulating project activities.

(2) Present situation of packaging industries in selected Arab countries was partly studied during the abovementioned visits and will be fully assessed through the already indicated sectoral studies.

(3) Level of local/regional expertise and the needs for it were reviewed and identified, and the project was formulated with the view of securing self-reliance of the region in this respect.

(4) Specialized and semi-specialized national manpower available in the region was assessed but the results are modest since no packaging institutes exist in other Arab countries so far.

A few experts can be found in industry, mostly in Egypt and some of them have already been invited to assist in the preparations for the project. During the visits to selected Arab countries in the framework of the preparatory phase, the problem of specialized manpower was discussed with authorities (i.e. with the Jordanian Minister of Industry) as well as industrial and research organizations (see the summaries of the visits). In most cases there was a demand for training the specialists, reflected in the project training programme. In the case of Jordan and Tunisia, there were suggestions of two persons as prospective staff members of ARPAC.

It should be noted that in the first version of the draft Project Document, discussed at the Joint AIDO-UNIDO/IMEC Meeting in Casablanca, June 1982, there were twenty persons anticipated for recruitment in addition to the existing IMEC staff necessary to expand its activities. But upon the demand of AIDO this component has been reduced to four in the present version of the Project Document.

(5) Contribution of the Governments in cash to the project has been ensured for the first two years by the decision of the AIDO Governing Council to allocate US\$ 250,000 for 1983 and US\$ 350,000 for 1984. The rest of the contribution will have to be assessed through the tripartite negotiations later on.

(6) Preparatory assistance objective number 6, although it calls for the preparation of the training programme, was not supported by the inputs to implement this objective, nor is it reflected in the outputs. Job descriptions of the experts 10.01 to 11.04 do not contain the duty corresponding to the objective number 6.

In the absence of such proposals the consultant designed the training programme based on his own experience and results of the visits to selected Arab countries carried out in May and July 1982.

Activities numbers 15.2 and 15.3 of the Project Document refer to in-plant training.

However, in view of limited funds for the project (as a result of the first Joint Meeting, training component has been curtailed by almost half), it was deemed advisable to concentrate during the first four years on basic training activities which would have multiple effect and to expand in-plant training activities in the later phases of ARPAC development. The training activities have been designed in compliance with the recommendations of the Mid-Term Programme accepted by the AIDO Governing Council at their meeting in Baghdad, September 1981, and the suggestions of the UNIDO experts (reports of Messrs Ghanem and El Sayad refer). They cover the main groups of the ARPAC activities - documentation and information, training, research, standardization and studies.

(7) A group training programme was organized in the form of a study tour carried out with the assistance of two UNIDO experts - Messrs M. Bouyer and G. Ghali. Regrettably only a few participants from the Arab countries joined the tour in spite of the early action taken by IMEC towards the preparation of the event. The tour originally included four countries - Austria, West Germany, France and Morocco and was supposed to be terminated by the seminar in Casablanca. Due to the postponement of the latter, the study tour terminated in Paris.

(8) The draft Project Document has been prepared and submitted to AIDC, UNDP and UNIDO for further considerations, as outlined earlier on in this report.

(9) A detailed work plan proposal for the first two years of project implementation has been worked out by the consultant and attached to the Project Document.

(10) The postponed seminar mentioned in point (7) above was finally merged with the regional Food Canning Congress, which took place in November 1982 at IMEC in Casablanca, and a working group on packaging reviewed the activities drafted in the Project Document, fully endorsing them. The representatives of Egypt, Oman, Morocco, Syria, Tunisia, Democratic Republic of Yemen and UNDP office in Rabat took part in the working group. During the Congress, discussion was held with the delegate of AIDC on the implementation aspects of the project.

V FINDINGS

As a result of observations made and experience gained during the mission, the following conclusions can be drawn:

- (a) Packaging production and supply does not keep pace with industrial development in the Arab countries.
- (b) Heavy imports of packaging materials and containers increase cost of packaging, reducing the competitive value of the domestic products on the foreign markets.
- (c) Substantial losses of products due to inferior packaging call for urgent solutions in this field.
- (d) There is a sufficient awareness of and sensibility to the importance of packaging in the national economies of the Arab countries, substantiated during the visits performed in the framework of the mission, which allow to believe that the project will gain ample support both at AIDC and UNDP-UNIDO levels.

(e) Due to the diversification of packaging industries on the one hand and the need for concentration of efforts of individual countries on the other, a co-ordination of regional activities in the field of packaging is required.

(f) IMEC may well serve as a basis for the abovementioned regional activities, judging from its present personnel qualifications, facilities and the experience gained during the four years of its full operation.

The above conclusions were substantiated in the draft Project Document, annexed to this report.

VI MAIN CONCLUSIONS

(1) Progressing industrialization of the Arab countries calls for the development of packaging technology, as one of the crucial elements of the product distribution system. Quantitative and qualitative demands for packaging could not be rationally satisfied without development of the region's own manufacturing and know-how capacity.

(2) Since 1973 Arab countries have been carrying out activities on a regional level to create a packaging infrastructure and set up a machinery to increase awareness and co-ordinate efforts of national economies aiming at the development of local packaging industries.

Successive regional conferences of the National Arab Committees for Packaging devised a framework and guidelines for regional co-operation in the field of packaging, the cornerstone of which shall be the Arab Regional Packaging Centre.

(3) Two priorities are identified in the programme of ARPAC activities. They are packaging of food and packaging for export. The first one is closely linked with the regional Food Security Programme and aims at reducing food losses through better protection, the second one attempts to increase the competitiveness of Arab products on foreign markets.

(4) There is a need for co-ordination of the activities of the Arab countries concerning development of packaging industries and related fields of research, design, formation of specialized cadres, standardization, communications etc., aiming at building up the region's own technological and managerial capabilities.

The best suited institutional framework for these activities appears to be a regional centre set on the existing, well-established national institute of packaging which could offer necessary facilities and staff supplemented by regional specialized or semi-specialized manpower.

(5) For this purpose it is recommended that the Arab Regional Packaging Centre (ARPAC) is established, based on the Moroccan Institute of Packaging (IMEC), the only one fully functioning national packaging body in the region.

(6) IMEC represents adequate basis for carrying out regional activities having all the necessary functions sufficiently developed. Certain additional inputs are required to implement ARPAC activity programme.

UNDP/UNIDO assistance in experts, fellowships and equipment is also necessary to ascertain proper functioning of ARPAC.

(7) The draft Project Document has been prepared for the large-scale project, outlining objectives, outputs, necessary inputs and activities of ARPAC, as well as modalities of its establishment.

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO

4 december 1981,

PROJECT IN THE ARAB REGION

JOB DESCRIPTION
DP/RAB/80/013/11-04/A/31.7.E

Internal

Post Title Expert in Packaging Studies

Duration Six months

Date required As soon as possible

Duty Station Casablanca, with travel within the region

Purpose of Project To foster the growth and expansion of the packaging industry in the region through the establishment of a Regional Packaging Centre.

Duties

The expert will be assigned to the Moroccan Institute of Packaging and will co-ordinate the activities with the counterpart General Director, in consultation with the Arab Industrial Development Organization (AIDO) whenever appropriate. More specifically, the expert will be expected to :

1. Become acquainted with the structure and technical resources of the Moroccan Institute of Packaging in terms of personnel and equipment, and with the aims, plans and studies already carried out on its conversion into the Arab Regional Packaging Centre ;
2. Carry out a survey of the present situation of packaging industry in selected countries in the region in terms of supply and demand of packaging materials and packages, and of available raw materials and appropriate technology for the local or regional production of packaging materials ;
3. Work out a unified plan for the development of new or existing packaging industries in the selected countries in the region, aimed at achieving or substantially contributing to the national and regional self-sufficiency within the field of packaging, taking into account financial, economic and social conditions involved ;

4. Ascertain the availability and need of national and regional expertise which would be required for implementation of the aforementioned unified plan, as well as the type and extension of technological support service which should be granted by the Arab Regional Packaging Centre and existing or forthcoming national packaging institutions ;
5. Prepare a project document for the large-scale project which will follow the present preliminary assistance phase, bearing in mind that an essential part of it will relate to the establishment of a computerised information and documentation unit ;
6. Give ad hoc advice on other related matters upon specific request from the General Director of the Moroccan Institute of Packaging.

The expert will also be expected to prepare a final report, setting out the findings of the mission and recommendations to the Governments on further action which might be taken.

Qualifications

Packaging Technologist and/or Economist, with a University degree or equivalent experience ; particular experience in the management of a technological packaging institution and in the preparation and development of large-scale packaging projects.

Language

English ; French an asset

Background Information

With UNDP/UNIDO assistance, the Moroccan Institute of Packaging (IMEC) was established. Since 1974, the IMEC has been receiving UNDP/UNIDO assistance and has been transformed rapidly into a "Centre of Excellence".

In 1973, Arab experts held a meeting and decided on the following :

- a) To work to develop the packaging industry and related sectors both at the national and regional level ;
- b) To create specialised packaging institutes ;
- c) To exchange experience and take advantage of the facilities existing in countries in the region.

One of the most important recommendations of this meeting was the designation of the Moroccan Institute of Packaging, to carry out , with the collaboration of IDCAS, the task of documentation and information until the creation of an Arab Regional Packaging Centre.

The second meeting of the Arab National Packaging Committees requested IDCAS to carry out a comprehensive study concerning the creation of the Arab Regional Packaging Centre.

Indeed, this study was carried out by IDCAS and presented at the Third Arab National Packaging Committee's meeting where it was decided to convert the Moroccan Institute of Packaging into the Arab Regional Packaging Centre.

Upon the request of IDCAS, a UNIDO expert was fielded in September 1979 to give advice on the establishment of the Regional Centre and its terms of reference. IDCAS took the report of the UNIDO expert as a basis for working out the statute of the Regional Centre and the Fourth Meeting of the Arab National Packaging Committees approved the draft statute of the Regional Centre. A work plan for 4 years, proposed by IDCAS, was discussed and approved at the same meeting as a transition project to be implemented jointly by IDCAS and IMEC.

Despite the lack of precise and reliable statistics regarding the packaging industry in the region, one can give a brief outline of the importance of this industry in the national economies of the countries ; in Morocco, for instance, more than 12,000 people are employed in the packaging sector. The investments reach 30 million dollars and the annual product more than 180 million dollars; in Jordan, every year, 10 to 12 million wood boxes are used locally or exported. The countries in the region, however, import large quantities of packages.

Generally speaking, the rate of waste and damage of raw materials and finished products due to bad or inappropriate packaging is very high. For instance, the percentage of waste and damage in food packaging is about 25 %.

It is mainly for the above-mentioned reason that countries in the region have shown an increasing interest in the packaging industry.

IMPLEMENTED PROGRAMME OF THE MISSION

<u>DATE</u>	<u>ACTIVITY</u>
April 19-20, 1982	Briefing at UNIDO, Vienna.
April 21, 1982	Arrival at the duty station, Casablanca, Morocco.
April 22, 1982	Visit to the Moroccan Institute of Packaging, IMEC. Visit to the UNDP office in Rabat, meeting with Mrs. L. Hlass, Resident Representative and Mr. E. Dierckx De Casterle, Deputy Resident Representative. Discussion of the mission's aims and activities. Departure for Casablanca.
April 23, 1982	Collection of the background documents at IMEC regarding the meetings of the Arab Packaging Committees and IDCAS/AIDO draft programmes on the establishment of the Arab Packaging Centre. Meeting with Mr. Abdelhaq Bermouna, IMEC General Manager, discussing the outlines of the mission's programme.
April 24-30, 1982	Formulation of the mission's programme and its endorsement by the counterpart and UNDP. Preparation of the programme and time schedule for the visits to the selected Arab countries. Familiarization with the counterpart institution, its organization, activities and equipment.
April 25-29, 1982	Evaluation of the expert candidates for the posts RAB/80/015/11-04/B (corrugated fibreboard packaging) and 11-04/C (plastics packaging).
April 25, 1982	Preparation of draft outline of the Mid-Term Programme objectives and activities as working material for discussion during visits to selected Arab countries, based on the guidelines formulated at the Beirut NACP Conference, May 1980.
May 3-5, 1982	Briefing of UNIDO experts, Mrs. Antoinette David and Dr. Samir El Sayad on the ARPAC project and correlating their activities concerning documentation and information with the ARPAC programme.
May 16-29, 1982	Visits to Jordan, Kuwait, Saudi Arabia and Iraq to discuss the ARPAC project and identify priorities in packaging development as well as seeking support for the project.

<u>DATE</u>	<u>ACTIVITY</u>
May 31 - June 5, 1982	Working out a programme for the study tour and the two-phase seminar planned for September 1982.
June 1-4, 1982	Preparing a programme for the AIDO Follow-up Committee meeting planned in Casablanca, June 28-30, 1982.
June 7-25, 1982	Drafting first version of the Project Document concerning Establishment of the Arab Regional Packaging Centre.
June 30 - July 2, 1982	Participation at the Joint AIDO-UNDP/UNIDO-IMEC meeting to review the first draft of the Project Document concerning establishment of ARPAC.
July 5-7, 1982	Preparing programme of the visit to Tunisia.
July 14-17, 1982	Visit to Tunisia to discuss the project and seek support of the authorities.
July 19 - August 15, 1982	Preparation of the second draft of the Project Document in co-operation with the counterpart and UNDP Rabat.
August 21 - September 1, 1982	Working out the report role of packaging in the national economy for the two-phase seminar.
September 2-17, 1982	Preparing additional working material supplementary to the Project Document, as requested by the Joint Meeting.
September 23-24, 1982	Participation at the second Joint Meeting (previously planned as the AIDO Follow-up Committee meeting).
September 25 - October 24, 1982	Rectification of the draft Project Document according to the new UNDP guidelines.
September 27 - October 1, 1982	Preparing packaging thematics for the Regional Seminar on Packaging, Storage and Distribution of Fertilizers and the Food Canning Congress in Casablanca.
October 4-6, 1982	Compiling a list for additional laboratory equipment to be purchased from the remaining funds of the national project, DP/MOR/73/002.
October 7-8, 1982	Second evaluation of expert candidates for the post RAB/80/013/11-04/B.
October 11-15, 1982	Preparing the work programme for the expert in plastics packaging (11-04/C).
October 14-15, 1982	Briefing of the expert.

<u>DATE</u>	<u>ACTIVITY</u>
October 28 - November 21, 1982	Preparing final version of the Project Document.
November 22-26, 1982	Assisting in the preparation and participation of the Food Canning Congress, Casablanca.
November 20 - December 1, 1982	Preparing final report.
December 2-5, 1982	Final meetings and visits.
December 6-11, 1982	Annual leave to prepare for departure.
December 12, 1982	Departure from Casablanca for Vienna.
December 13-14, 1982	Debriefing at UNIDO, Vienna.

UNITED NATIONS DEVELOPMENT PROGRAMME APPENDIX 3
REGIONAL PROJECT OF THE GOVERNMENTS OF THE ARAB STATES

DRAFT PROJECT DOCUMENT

-0-

TITLE : ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE
NUMBER : DP/RAB/80/013 DURATION : Four years
Primary Function : Institution Building
Secondary Function: Training
Sector : Industry Industry 0510
(Government Classification) (UNDP Classification and Code)
Subsector : Packaging Industry Manufacturing Industry 0520
(Government Classification) (UNDP Classification and Code)
Regional Co-ordinating Agency : ARAB INDUSTRIAL DEVELOPMENT ORGANIZATION
(A I D O)
Government Implementing Agency: THE MOROCCAN INSTITUTE OF PACKAGING
(I M E C)
U.N. Executing Agency : UNITED NATIONS INDUSTRIAL DEVELOPMENT
ORGANIZATION (UNIDO)

Date of Submission :
Starting Date :

GOVERNMENTS' INPUTS TOTAL : US \$ 1.709.000 UNDP INPUTS : \$ 1.972.500

In Cash : US \$ 1.400.000 :
In Kind : US \$ 309.000 :
plus the contribution in kind
of the Government of Morocco
including housing, personnel
and administration.

On behalf of the Governments : Date
of the Arab States
.....
On behalf of the Executing : Date
Agency
.....
On behalf of the UNDP : Date

PART. I - LEGAL CONTEXT

This Project Document shall be the instrument referred to as such in Article 1, paragraph 1, of the Assistance Agreement between the Government of Morocco and the United Nations Development Programme, signed by the Parties on 13 May 1982. The Government Implementing Agency shall, for the purpose of the standard Basic Agreement, refer to the Government Co-operating Agency described in that Agreement, as well as to the decision of the AIDO Governing Council taken at the meeting in Taif on 26 October 1982 and the Convention signed between AIDO and the Moroccan Ministry of Commerce, Industry and Tourism, concerning implementation of the Mid-Term Programme by the Moroccan Institute of Packaging, I.M.E.C.

PART. II - THE PROJECT

SECTION A - DEVELOPMENT OBJECTIVE

The development objective of the Project is to contribute to a reduction of product losses, especially foodstuffs, through improved utilization of packaging processes, exploitation of raw material resources for the production of packaging materials, improved marketability of Arab food and industrial products on national, regional and international markets and up-grading human resources skills needed in the packaging industry.

SECTION B - IMMEDIATE OBJECTIVES

In order to make appropriate contribution towards the envisaged long-term attainment of the development objective and bearing in mind the "Draft Agreement for the Establishment of the Arab Regional Packaging Centre in the Arab Countries", which was adopted by the 4th Meeting of the National Arab Packaging Committees held in Beirut on 26 - 28 May 1980, as well as the subsequent amendments introduced at the session of the Follow-up Committee held in Rabat on 25 - 28 August 1981, the following are the project immediate objectives :

- 1./ To formally establish, organize and start regular activities of the Arab Regional Packaging Centre by the year 1985 in the specific fields of documentation and information, training, applied research and testing, design, quality control and standardization in packaging.
- 2./ Within a year of operation, to establish a packaging network comprising of national packaging committees with its respective permanent secretariat in all member states for co-ordination and channelling continuous flow of communication and information from the national to the regional level. In order to stream-line planning and secure follow-up of the mid-term programme activities a regional packaging committee should be formed, which will also participate in the tri-partite project review meetings.
- 3./ To establish by December 1983 a self-reliant regional documentation and information unit capable of rendering a regional system of dissemination of information and packaging inquiry service.
- 4./ To have an integrated approach to the creation of Arab packaging cadres and specialists in the following areas : information, training, marketing, research, standardization and studies so that by the end of 1986 in each Arab country packaging expertise would have been obtained through training of 60 managers, 40 trainers, 60 specialists in standardization, 20 specialists in documentation and information, 40 specialists in other packaging qualities.
- 5./ To establish a regional consultancy service aiming at assisting packaging manufacturers and users in solving their problems.
- 6./ To co-operate with ASMO in the establishment by 1985 of a regional packaging quality certification system in the industry and trade for selected types of packages, in working out packaging standards and in the functioning of advisory services on standardization and quality control in the packaging industry.

7./ To prepare a medium term forecast of packages consumption in the Arab Countries and correlated appraisal of available raw materials , appropriate technologies, required human resources and advisable industrial policies for maximum production of the needed packaging materials and packages by using regional capacities.

SECTION C - SPECIAL CONSIDERATIONS

Implementation of the Project will have effects also in other important fields :

1) Prevention of food losses

One of the formidable global problems is to reduce food losses occurring during the transportation, storage, processing and distribution of food products. Development of packaging industries is one of the crucial elements in efforts to increase the amount of food available for consumption and fight world hunger. Regional food security programme should be back-stopped by the ARPAC on a priority basis and the participation of the Centre in its implementation well defined.

2) Utilization of local resources

(i) Packaging industry is regarded as one of the most labour giving industries in the industrialized countries and the amount of people directly or indirectly involved in packaging production and packing processes gives this industry one of the first places in this respect. Development of packaging industries in Arab Countries might be of importance in solving the labour problems.

(ii) One of the Project's goals is to increase the use of locally available raw materials in the production of packaging materials and containers . This activity should be regarded as contribution to the global task of intensifying utilization of indigenous resources in developing countries.

3) Human health

(i) Imposition of obligatory standards and specifications concerning the contents of dangerous substances migrating from packaging materials to food products will reduce health hazards to consumers.

(ii) Development of the pre-packed food products on a massive scale will directly contribute to the improvement of the hygiene level of the population and help abate infections and diseases.

4) Environment

(i) Introduction of more economic packaging systems will reduce consumption of energy and materials through rationalization of package construction, application of wasteless manufacturing technologies, and recycling of factory and municipal scrap and refuse.

(ii) Broader use of economically justified multi-way, returnable packaging containers will substantially contribute to the protection of environment and increase of industrial capacities.

SECTION D - BACKGROUND AND JUSTIFICATION

1. Background

1.1 The growing awareness of the Arab Countries of the importance of packaging in the national economy resulted in calling by IDCAS the First Arab Regional Consultation in CAIRO, March 1973, under the auspices of UNIDO.

The recommendations of that meeting stipulated unification of efforts towards the development of packaging industry in the region, creation of specialized packaging centres/institutes and national packaging committees in each country and, what was the most significant and unique on the international packaging scene at the time - creation of a regional packaging centre.

1.2 Consistent follow-up of these principal findings further developed the idea of regional co-operation. As a consequence National Arab Committees for Packaging (NACP) were organized in a number of Arab Countries and the first packaging centre in the region was established by the Government of Morocco called further on the Moroccan Institute of Packaging (IMEC).

1.3 Regarding development of the Arab Regional Packaging Centre, subsequent meetings of the Arab National Committees for Packaging were gradually identifying the concept, scope and structure of the Centre :

(i) The second NACP meeting in Alexandria, October 1975 requested IDCAS to prepare a comprehensive study on the creation of the Centre

(ii) The Document was submitted and evaluated at the Third Meeting in Casablanca, October 1977, based on which it was recommended that the Centre shall be established in Morocco.

The formula was also adopted, according to which the Moroccan Institute of Packaging being still a national body, shall offer services to all Arab Countries (provided that IDCAS and UNIDO assist the Institute in terms of experts and equipment), and later on shall be converted into the Arab Regional Packaging Centre.

Furthermore the meeting requested IDCAS to prepare the draft statutes and the convention concerning the formation of the Centre and to organize a constitutive assembly to adopt the convention and proclaim its creation.

(iii) At the Fourth NACP Meeting in Beirut, May 1980, the draft convention was approved and IDCAS was entrusted to take necessary steps towards ratifying the document.

The document also approved the Mid-Term Programme to develop packaging industry in Arab Countries outlining activities as well as the budget and requested IDCAS and the IMEC to co-operate in its implementation, with the assistance of the UNDP and the Arab Development Fund.

The Follow-up Committee was formed to assist IDCAS in fulfilling its tasks, consisting of the representatives of IRAQ, JORDAN, LEBANON and MOROCCO, the latter acting as a secretariat for the Committee.

1.4 The AIDO Follow-up Committee met in August 1981 in Rabat to consider the Mid-Term Programme Document and the measures to be taken towards the establishment of the Arab Regional Packaging Centre. The Committee suggested to supplement the Mid-Term Programme with the following activities :

- a. Establishment of the Industrial Design Centre at IMEC to train specialists from Arab Countries ;
- b. Establishment of the Documentation and Information Centre at IMEC, closely linked with the similar Centre at the AIDO Headquarters in Baghdad ;
- c. Organization of packaging exhibitions to increase exchange of knowledge and experience in this field among the Arab Countries.

The Committee also revised the 4 years budget proposed by the NACP Beirut meeting and suggested to postpone construction of a pilot plant until the Arab Regional Packaging Centre is fully established. Finally the Committee recommended that the implementation of the project would start by the end of 1981 with the preparatory phase assisted by the UNDP, aiming at identification of the needs of the Arab Countries in the field of packaging, their support to the project in kind and in cash, as well as formulation of the detailed project activities.

The Committee took note of the acceptance of the project by the Governments of Iraq and Morocco.

1.5 The Governing Council of the Arab Industrial Development Organization AIDO (former IDCAS) met in Baghdad , September 1981. The Council, consisting of the ministers of industry of the member countries, took the following decisions :

- (i) To approve the recommendation of the Third NACP Meeting in Casablanca to create the Arab Regional Packaging Centre in Morocco ;
- (ii) To approve the draft "Mid-Term Programme to develop packaging industry in Arab Countries" in the form presented by AIDO ;
- (iii) To request AIDO to prepare the detailed programme of action and to present it at the next Council's meeting in Saudi Arabia, October 1982.

1.6 The most recent action taken at the regional level with regard to the ARPAC was the meeting of the AIDO Governing Council in Taif, 26-27 October 1982. The Council adopted the following resolutions :

- (i) To approve the Mid-Term Programme for packaging development as contained in the presented draft Project Document, to be implemented by AIDO and IMEC ;
- (ii) To request AIDO to allocate necessary funds for the first two years of project operation ;

By this resolution the Council reconfirmed the decision taken at the previous meeting in Baghdad , September 1981 concerning establishment of ARPAC and approval of draft Convention .

1.7 The Mid-Term Programme to develop packaging industry in Arab Countries outlines main activities to be carried-out in cooperation between AIDO and IMEC and with the assistance of the UNDP and the Arab Development Fund. These activities aim at the development of necessary services in the field of packaging on the regional scale as well as establishment of the Arab Regional Packaging Centre (ARPAC).

They include (quote) :

- a. Making economic and technical studies necessary for developing packaging industry in Arab Countries ;
- b. Organization of specialized seminars and meetings dealing with issues relating to packaging ;
- c. Providing assistance and advice in the form of experts, in order to study specific problems relating to packaging in Arab Countries ;
- d. Training of specialized technical staff to ensure a good running and higher output of packaging industry in Arab Countries ;
- e. Following up technical and technological advances and transferring those adapted to Arab Countries ;
- f. Collection and dissemination of information relating to packaging field to all bodies concerned with packaging in Arab Countries ;
- g. Doing applied research - pilot plant.

1.3 As it clearly arises from the above activities, they outline in fact the target objectives of the future ARPC. They were taken as a basis for drafting the further parts of the Project Document.

2. Justification for the Project

2.1 The programme of Action on the Establishment of a New International Economic Order adopted by the U.N. General Assembly at its Sixth Special Session on 1 May 1974 emphasized that the industrialization of the developing countries should play a major role in the establishment of this new system and that the developing countries cannot expect to achieve their full economic potential unless major changes are made in the industrial organization - affecting the acceleration of the development of industry.

2.2 One of the consequences of the process of industrialization is the development of packaging technology, providing manufactured goods with maximum protection and attractiveness during their distribution and marketing.

In the light of this general economic development, packaging technology came to be recognized by the developing countries as a new and important industrial branch and an applied science, requiring adequate inputs of knowledge and research.

2.3 With the fast world-wide escalation in prices and shortage of raw materials, packaging assumes even greater significance than before, being a potential source of major savings in manufacture, transportation and consumption of commodities.

In an attempt to remain competitive on the international markets, in the face of inflationary trends, countries search for ways to utilize local natural resources to the best advantage, protect products and to achieve efficient packaging at a comparatively low cost.

2.4 Packaging is a very diversified field involving variety of the economic, technical and social activities. It is therefore necessary to decide on correct proportions and priorities in the development of packaging industries, according to the general development of the national economy of each country.

2.5 In the Arab Countries packaging is still unsatisfactory as regards quality and quantity. Increase of the share of pre-packed products

in the countries' exports could result in a substantial improvement of the foreign exchange earnings, together with the creation of a new labour market and an opportunity would also be given to faster growth of the packaging industry.

2.6 The package production capacities available in the countries of the region are only partly utilized. Coordination of efforts and technical assistance generated within the multi-lateral co-operation of the countries would be crucial in augmenting the production of packaging media utilizing locally available raw materials.

2.7 One of the conditions for successful accomplishment of the regional food security programme is to solve packaging problems. Agricultural and food produce needs special protection against fungi, insects, rodents, moisture, light, temperature, contamination, mechanical stresses and many other hazards, which pose extremely difficult tasks to packaging technology and requires concentration of efforts of manufacturers, users and researchers. Co-operation with the food security programme should be treated on a priority basis.

2.8 Visits to selected Arab Countries carried out in May 1982 by the representatives of IMEC and UNIDO in the framework of Preparatory Phase gave additional important information on the needs and priorities in the field of packaging :

a) Lack of most basic raw materials to manufacture packaging media calls for proper choice of packaging systems and better planning of future investments in packaging production ;

b) Higher costs of energy and materials give priority to the economic manufacture and use of packaging through the increased, re-cycling and substitution, unification and standardization of packages ;

c) Prevention of food losses during the distribution cycle and extension of the shelf life of food products demands the development of packaging technology ;

d) Promotion of Arab products on export markets largely depends on the quality of their packaging, therefore design and quality control should be improved.

e) Training packaging specialists to increase local availability of qualified cadres .

2.9 To ensure proper development of national packaging industries it is indispensable to establish a regional centre of know-how and expertise. The scope and organization of the regional centre should be adequate to the real requirements of the member countries and the region, taking into account available resources, level of development achieved by the national economies and other specific conditions.

2.10 The principle task of the Arab Regional Packaging Centre should be to generate favourable conditions for the proportional growth of packaging industries in the Arab Countries, able to supply quantitatively and qualitatively adequate materials, containers and techniques to pack agricultural , food and industrial products grown and manufactured in the region.

2.11 Although packaging activities on a national level are developed only in few Arab Countries, specialized or semi-specialized manpower should be identified in the region and employed at IMEC in order to strenghten ARPAC activities.

SECTION E - INSTITUTIONAL FRAMEWORK

1. IMEC as the basis for the ARPAC Activities

1.1 According to the recommendations of the Third NACP Meeting in Casablanca (1977), the Moroccan Institute of Packaging (IMEC) was selected as the institutional basis for the future Arab Regional Packaging Centre (ARPAC).

1.2. IMEC which entered in full operation in 1979 as a result of joint efforts of the Government of Morocco and UNIDO, is the only institute of that kind in the Arab Countries so far and encompasses all major fields of packaging activities.

1.3. The main functions of the IMEC as envisaged in its terms of reference, are :

- (i) Collect and disseminate information in the field of packaging ;
- (ii) Carry out research and development works in order to improve packaging, especially for exports ;
- (iii) Establish contacts and co-operate with the Authorities, industry, trade, packaging manufacturers and other parties concerned with the development of packaging ;
- (iv) Train Moroccan as well as African specialists in packaging techniques ;
- (v) Organize seminars, conferences and exhibitions to promote packaging ;
- (vi) Generate and support all activities aiming at the development of packaging.

1.4. The Institute, which is primarily the service oriented body, was established on 29 September 1973 by the Government of Morocco (Act. N° RE.2/2589). It is an autonomous institution sponsored by the Office de Commercialisation et d'Exportation (O.C.E.) and governed by the Governing Council. The Governing Council, presided by the Minister of Industry, consists of the representatives of the following ministries : Commerce, Industry and Tourisme, Finance, Agriculture, Foreign Affairs. Co-operation, Plan and Education, as well as other industrial and trade organizations, namely : Organization for Commercialisation of Exports (OCE) (Vice-President) and Industrial Federations : Agro-Industries, Paper and Carton, Wood and Plastics Industries. Composition of the Council ensures broad representation of interests, of both packaging manufacturers and users. Its high level indicates the importance given by the Authorities to the field of packaging.

1.5. Existing structure of the Institute is envisaged in the Appendix N° 2. Substantive activities are grouped into 6 sections :

- Research and Development (including package design) ;
- Laboratory ;
- Standardization ;
- Economic and Marketing Studies ;
- Documentation and Information ;
- Training.

1.6. Staff, Actually the total Institute's personnel consists of 42 full-time employees, according to the following break-down :

- Administration : 10
- Professional staff : 16
- Auxiliary and maintenance staff : 16
- Out of 16 professional staff members 9 are engineers and 7 have medium technical education level.

1.7. Laboratory consists of the following units :

- 1 - Physical testing
- 2 - Chemical testing including food compatibility
- 3 - Paper and carton testing
- 4 - Mechanical and climatic testing
- 5 - Calibration and maintenance.

Equipment provided through UNIDO assistance, enables most of the tests required by technical specifications for packaging materials and containers to be carried out.

It also makes possible evaluation tests necessary in research work aiming at the development of new constructions and applications on a national scale.

Research and testing activities to be carried out on a regional scale would require expansion of the existing programme as well as equipment of the IMEC to cover such areas as :

- Glass packaging ;
- Plastics materials and containers ;
- Complex packaging materials ;
- Packaging re-use and recycling ;
- Packaging systems - evaluation and consultancy.

For that purpose necessary additional inputs are envisaged in the Section H.

1.3. Documentation and Information Section has been equipped with the instruments and machines enabling development of the Computer-assisted processing and dissemination of information, however as suggested by the UNIDO documentation and information experts studying the matter in depth (posts DP/MOR/73/CO2/11-06 and DP/RAB/80/015/11-01), in order to fulfill the tasks of the ARPAC envisaged in the Mid-Term Programme, additional personnel and equipment to strengthen this Section should be planned.

This is outlined in the section H of the Project Document.

1.9. Training Section has at its disposal modern equipment as well as conference hall for 144 people with the installed 3 languages simultaneous translation equipment, two class-rooms and seminar/display room.

Regional activities would require additional personnel and small equipment inputs (Section H refers).

1.10. Design unit, consisting of 1 industrial designer should be strengthened in order to increase its services to the industry. These services, which are vital for Moroccan exports, provide the Institute with the important financial revenue. Therefore, it is suggested that in addition to the actual equipment, namely : photo camera Olympus OM 10 of a reporter's type, not particularly suited for studio works - another equipment should be provided in the framework of the project, (as envisaged in the Section H. Inputs) enabling the unit to carry out full-scale design activities as outlined in the Mid-Term Programme. An assistant designer should be also foreseen to increase the unit's efficiency and fulfill the role of the regional Packaging Design Centre.

1.11. Regionalization of the IMEC activities requires i.a. strengthening of the Institute's cadres with the specialized or semi-specialized manpower from other Arab Countries especially in such areas as documentation and information, training and standardization. Research activities need highly experienced specialists, constituting permanent staff of a packaging laboratory therefore it is less recommendable and probably not feasible at this stage to supplement IMEC with the regional personnel in this particular activity area. Instead, closer co-operation with other industrial research institutes/centres in the region would be recommended to carry out some research works for the ARPAC. An example could be Saudi Arabian Standards Organization having sizeable laboratories capable to perform various tests of packaging materials, as well as organize selected training activities in the field of packaging.

1.12. The so far accomplished projects by different IMEC Sections, like :

- Evaluation of metal and plastic straps used for reinforcement of fruit and vegetable boxes on the pallets (1980) ;
- Study on the external corrosion of metal cans (1981) ;
- Design of the new trade-mark for the O.C.E. (1981) ;
- Trial deep-sea shipment of palletized loads of fruits and vegetables packed in combined wooden/alfa particle board boxes, on the route Casablanca - Hamburg (1982) ;
- Organization of twenty seminars on selected packaging subjects carried out in the years 1981/1982.
- Publication of the monthly IMEC Bulletin which includes in its twenty pages information on the accomplished Institute's works and events, comments on current matters of concern in the field of research and development and also more interesting abstracts from the incoming packaging literature ;
- Elaboration of the thesaurus containing key-words, being the pre-requisite of the classification and computer-assisted processing of information ;

indicate that with the provision of stable, qualified personnel assisted by the regional cadres, additional equipment and efficient technical management, the institute should be able to fulfill the new, regional tasks. Expanded structure of the IMEC to cover regional functions is outlined in Annex N.3.

2. Institutional framework of the ARPAC

2.1. There is no detailed institutional framework for the Centre proposed or recommended so far by its sponsors. However the subject was dealt with at the Third NACP Meeting and AIDO was requested to prepare draft convention and the statutes of the ARPAC. The drafts were subsequently submitted to Fourth NACP Meeting for discussion and only draft convention was approved.

2.2. The draft convention stipulates that the Arab Regional Packaging Centre is established in Casablanca, Morocco and enjoys "moral personality and financial autonomy." It is administered by the Governing Council managed by the delegates of the Arab Countries who should be chosen from among the members of the national packaging committees or institutes, or their representatives. The Governing Council is the supreme authority for the ARPAC, defines its general policies, designs and follows up its work programmes, and supervises its technical, financial and administrative activities in co-ordination with the Economic and Social Council of the Arab League and with AIDO. The Governing Council nominates director general of the Centre for 4 year period, from among the candidates of the member countries. It is also empowered to establish branch offices of the ARPAC outside the country of residence. Administrative apparatus of the ARPAC is managed by director general assisted by the technical and administrative staff. He presents annual reports of the ARPAC to the Governing Council and after approval submits them to the Economic and Social Council. The Draft Convention entrusts AIDO with the preparation of ARPAC's statutes.

2.3. The Draft Convention was approved by the AIDO Governing Council at the meeting in Baghdad, September 1981 with the request that AIDO undertake necessary steps to ratify the Document. So far this recommendation has not been fulfilled.

2.4. The only reference to the future shape of the ARPAC is in the recommendation N.1 of the report of the Third NACP Meeting in Casablanca, October 1977, i.e. "to convert IMEC into the specialized Arab Packaging Centre", which is not clear and may evoke different interpretations. In order to avoid further delays in the project implementation it was decided at the Fourth NACP Meeting, Beirut 1980 to go ahead with the Mid-Term Programme and identify final shape and formula for the ARPAC during this 4 year period. It is suggested in the Project immediate objectives to formally establish ARPAC by the end of 1985. Therefore it was deemed premature to design organizational and functional structure of the ARPAC at this stage.

2.5. However it is obvious that the ARPAC's main activity will be information, training, consultancy and programming and its personnel will be formed primarily from the regional cadres employed at IMEC. Every effort should be made to identify the needs and availability of the specialized or semi-specialized manpower in the region to provide the cadres for ARPAC.

3. Other Co-Operating Institutions

3.1. The Arab Industrial Development Organization AIDO, in Baghdad, as the regional body representing all Arab Countries is not only the co-sponsor of the project but also its main warrant on behalf of the member countries. AIDO is therefore closely linked with and involved in the project implementation and will carry out co-ordination as well as advisory functions. It will also support the Project financially and substantively, assisting in the implementation of Project activities in the member countries.

3.2. The National Arab Committees for Packaging constitute the nuclei of packaging infrastructure in the member countries. They have played a decisive role in developing the idea of the ARPAC and form the main regional platform of common understanding and arrival at consensus of the Arab countries' views on different aspects of packaging activities. The NAPC are the vital component of the institutional framework of the Project and will be helpful in implementing its activities in respective countries. They have to be established as soon as possible in those Arab Countries where it has not yet been the case.

3.3. Particular interest in the project has been expressed by the regional Arab Standards and Metrology Organization (ASMO) as well as national standardization organizations which declared support and co-operation in the implementation of relevant project activities.

A Technical Committee for Packaging was established in the framework of ASMO, consisting of Iraq, Libya, Morocco (Secretariat), Saudi Arabia and Sudan.

Cooperation of ARPAC and ASMO may be two-fold :

- taking part by ASMO in the implementation of specific project activities by means of direct participation (as envisaged in Activity N^o.15) or implementation by the Technical Committee (Activities Nos. 4 and 32).
- Delegation by ASMO authority to ARPAC for carrying out certain regional standardization activities in the field of packaging- e.g. preparation of draft standards to be approved by ASMO.

Co-ordination of the activities of ASMO and ARPAC at the policy level should be secured by reciprocal membership in the Governing Councils and at the working level through the ASMO Technical Committee, where the secretariat is run by the IMEC.

3.4. Valuable experience in technical assistance to developing countries in the field of packaging is represented by the Food and Agriculture Organization FAO and the International Trade Centre ITC - UNCTAD/GATT. The first one often adding packaging components to the processing and marketing of the produce, the latter promoting packaging for export.

It is essential that the information and consulting services of ARPAC possess and utilize all available sources and references regarding FAO and ITC activities concerning packaging.

SECTION F. OUTPUTS

The outputs of the Project are arranged according to the main activity groups envisaged for the Project, namely :

- a) Documentation and Information Services ;
- b) Training Services ;
- c) Research , Testing and Design Services ;
- d) Standardization and Quality Control ;
- e) Techno-Economic and Marketing Studies

a - Documentation and Information Services

This activity group aims at creation of the regional information network and building up the flow of knowledge on packaging from the Documentation / Information Centre to the recipients and feed-back of all necessary data on packaging industry and its needs. The physical basis for this network shall be the hardware existing at IMEC with its micro-processor, printing attachment, microfiche reader and reproduction unit , as well as adequately equipped library. The national components of the network shall be the contact points in each Arab Country, which would transfer the information to the final recipients and act as feed-back medium. The linkage between the Documentation/ Information Centre and the points of contact should be settled by all communication means and the regular information exchange scheme should be established. Also personal contacts should be maintained as time and funds permit. The end-users, as defined by the UNIDO Documentation + Information expert (Mr. Samir Elsayad's report refers) shall be National Packaging Committees, packaging manufacturers and users, government agencies, research centres, Arab regional organizations and international organizations existing in the region.

The ARPAC should carry out promotional activities to develop the need and demand for the information, i.e by inviting points of contact to co-operate in preparing the regional ARPAC Bulletin and establishing national correspondents .

The following outputs are expected to be achieved through the Documentation + Information Services :

- 1/ The packaging information network (points of contact) established in the Arab Countries, which will enable distribution and feed-back of the information collected and processed in the IMEC's Documentation and Information Centre. Target date : 1 October 1983.
- 2/ Availability of a roster of Arab experts and teachers in the field of packaging, as the first step in creating independent regional expertise in the field of packaging. Target date : 1 October 1982.
- 3/ Glossary of Packaging Terms in Arabic language, filling a serious gap in the Arabic terminology. Target Date : 1 June 1984.
- 4/ First regional Directory of Packaging Industries as a basic reference book for manufacturers and users of packaging. Target date : 1 September 1984.
- 5/ Regional Packaging News Bulletin bringing actual information on packaging events, works and publications directly to the hands of those who need it. Target date : 1 June 1983.
- 6/ Computer assisted collection, retrieval and dissemination system of information , embracing all Arab Countries. Target date : 1 January 1986.
- 7/ Permanent regional packaging enquiry service as one of the important steps in creating own regional, and readily available expertise in this field. Target date : 1 September 1984.

3/ Organization of one regional Packaging Congress and Exhibition, stimulating progress and creating professional contacts among the Arab Countries. Target date : March 1985.

b - Training Services

The needs of the Arab Countries regarding training in the field of packaging could be considered from two angles :

1/ To increase the awareness of those responsible for industrial development on the role of packaging in the national economy, particularly in protecting the goods and making them competitive on the markets.

2/ To develop the countries' own expertise in the field of packaging manufacture, application and research.

The training programme, as envisaged in the Project Document, is based on these two assumptions and also takes into account the Mid-Term Programme recommendations. It is designed to embrace all basic project activity groups and to bring maximum multiple effect. Given limited project funds it was considered advisable at this stage to grant priority to the training of decision makers, factory managers and teachers, leaving the upgrading of skills of the engineers and technicians for a later phase of the ARPAC development. However in order to prepare viable in-plant training programmes for the later phase, relevant task is included in the project activities.

Development of training aids is also anticipated in a form of documentary films (especially useful in research and mechanisation of packing processes) and audio-visual course as a basis for training the teachers.

The following outputs are anticipated from this activity group :

1. 40 policy makers and managers familiarized with the problems of packaging management and policies, crucial for the development of products and markets, through participation in four regional seminars to be carried out in 1984 and 1985;
2. 20 marketing directors of packaging users' companies familiarized with the foreign market requirements concerning packaging. For this purpose a regional seminar will be arranged in November 1984 ;
3. 40 tutors trained in the general subjects of packaging technology and economics at the two residential courses to be organized in 1984 and 1985 ;
4. 20 Specialists familiarized with theoretical and practical aspects of re-usable packaging at the seminar to be held in September 1983.
5. 60 Specialists from industry and administration trained on standardization and quality control in the field of packaging, through three regional seminars to be organized by ASMO in the years 1984-86.
6. 40 Factory engineers trained in the establishment and running of the packaging industry laboratories. For this purpose two in-plant training courses will be organized in 1983 and 1985.
7. 20 Documentation and Information Specialists trained by means of a regional seminar in the processing and dissemination of information, using modern micro-processor equipment and acquainted with the regional documentation and information infrastructure. Target date : May 1984;
3. 20 Specialists trained on health requirements and compatibility of packaging materials in contact with food, pharmaceutical and cosmetic products. Target date : October 1985.

9. Three groups of 15 specialists each in standardization, research and information from Arab Countries acquainted with relevant activities in industrialized as well as other developing countries. (Three group-study-tours, each of two weeks duration) ;
10. Two groups of 5 managers each from industrial and research organizations familiarized with modern methods of management and planning in the field of packaging in industrialized countries (two group-study-tours , each of two weeks duration) ;
11. 24 Specialists with up-graded knowledge and skills in operation and application of modern methods of processing information, organization of training activities, testing and evaluation of packaging materials and containers and standardization techniques by means of 45 m/months of the UN Fellowships implemented during the years 1983-86.
12. A series of the in-plant training programmes to up-grade the skills of the cadres directly involved in package manufacturing and packing processes.
13. Two documentary films, 30 minutes each, on experimental shipments and food packaging systems being the most effective tool of promoting packaging technology. Target date : October 1984.
14. General audio-visual course on packaging adapted for the requirements of developing countries, as one of basic training aids. Target date : February 1985.

c - Research, Testing and Design Services

This activity group represents the most creative and long ranging part of the ARPAC's programme, aiming at the self-reliance of the region in packaging development. The activities were designed to cover the following needs :

. Technical assistance to the packaging manufacturers and users, in terms of quality specifications, design services, adaptation of modern packaging techniques, establishing testing facilities, etc... ;

. Applied research, to tackle and seek solutions in the more complex problems, like re-usable packaging , recycling, machineability of packaging materials, substitution of deficit packaging, search for new, locally available materials, etc ... ;

. Consultancy services based on the output of the two former activity areas, and being the ultimate , most important function of the ARPAC as the regional centre of know-how and catalyst of the development of packaging industries and techniques in Arab Countries. The ARPAC's consultancy services will also include other areas as standardization, documentation and information, training and surveys.

The following outputs are envisaged in this activity group :

1) Laboratory services extended to fully cover the following important fields of packaging research :

- a. Glass packaging,
- b. Retail metal packaging ,
- c. Transport metal containers.
- d. Flexible materials,
- e. Compatibility,
- f. Machineability of packaging materials.

This output to be achieved through specialized training of research personnel and additional equipment input. Target date : gradually from February 1984 to July 1985.

2) Development of the packaging design centre at IMEC capable of carrying out engineering as well as graphic design and serving as a pilot centre for the other Arab Countries. Target date : 1 January 1984.

3) Development of modern packaging constructions and designs, conforming to international standards, to be introduced in the Arab Countries. Continuous realization, starting in March 1984.

4) Packaging testing units established in the Arab Countries to serve local industries in quality control of packaging materials and containers. Continuous activity starting January 1983.

5) Unified regional technical requirements for selected packaging materials, as a basis for elaboration of regional packaging specifications. The first of such requirements are expected to be formulated in 1984.

6) Recommendations on the adaptation of selected foreign packaging technologies to the local conditions and needs. The first of such recommendations are expected in 1985.

7) Practical recommendations and programmes for application in the industry, resulting from the implementation of the following research works.

- Re-usable packaging (June 1984) ;
- Recycling of packaging wastes (December 1984) ;
- Machineability of packaging materials (December 1986) ;
- Application and testing of high barrier multi-layer plastic films (December 1986) ;
- Substitution of packaging materials (December 1986)
- Search for new packaging materials based on locally available resources (December 1986).

8) Accomplishment of two trial shipments and field tests of packed goods aimed at assessment of climatic and mechanical hazards occurring during the transport and storage. The results will be crucial for the improvement of packaging protective functions. Trial shipments will be organized in the years 1984-86.

9) Unified criteria for the evaluation of packaging systems. Target date : 1 December 1986.

10) Commencement of the consultancy services to the industry and trade in the Arab Countries in packaging manufacturing and application, as well as in proper choice of packaging machines. Starting date : January 1983.

d - Standardization and Quality Control

Although standardization in broader terms is carried out by the national standards institutions and co-ordinated in the Arab region by the Arab Standards and Metrology Organization ASMO, the experience both in industrialized and developing countries indicates that in most cases packaging centres/institutes are empowered by the standardization authority to prepare draft standards for packaging materials, containers and techniques, for subsequent approval by this authority. This division of work represents definite merits, such as

availability of specialized testing facilities indispensable for the preparation of packaging specifications, and the increase of efficiency in working out draft standards by a professional body. ASMO is ready to accept this principle and special Technical Committee for Packaging has been established (Section E.p.3.3. refers) to carry out certain standardization works and co-ordinate ASMO/ARPAC activities in this field. The following outputs are expected to be achieved in this activity group :

1/ Introduction of basic regional packaging standards for terminology, classification, testing methods, dimensional system, marking for shipping, as indispensable means for improvement of packaging quality. Continuous activity, starting in June 1983.

2/ Unification of transport packaging dimensions in the region according to the international recommendations. Target Date : December 1984.

3/ Recommendations on the improvement of quality control (in particular on the factory level) in the packaging industry. Target date : February 1985.

4/ Establishment of the regional packaging quality certification system in industry and trade for selected types of packaging, especially for exported products. Target date : December 1986.

5/ Functioning of advisory service for the Arab countries on standardization and quality control in the packaging industries. Target date : March 1985.

6/ Awareness of the existing laws and regulations imposed by the importers on packaging, being the non-tariff barriers in international trade.

e - Techno-Economic and Marketing Studies

The following criteria were adopted in choosing the study subjects :

- to prepare the factual and statistical ground for the projection of the development of basic segments of packaging industries in the region ;
- to identify the fields of selected research and technical assistance works anticipated in the ARPAC's programme ;
- to assess foreign markets requirements with regard to packaging ;
- to survey the implications of the important global trade and economic phenomena and their impact on the development of packaging.

The end-users of the results of the studies will be : government agencies responsible for planning and programming industrial development ; research staff of the ARPAC and national packaging bodies concerned with the implementation of the work programme ; industry and trade managers responsible for packaging development and policies in their respective organizations ; exporters and importers of packed commodities. It is assumed that the studies will be carried out mostly by outside experts.

As a result the studies will contribute to the reduction of the product losses especially those of foodstuffs, as well as packaging costs. The following outputs are expected in this activity group -

1) Conclusions and recommendations on the present status and development trends of the main segments of packaging industry in the Arab Countries. Target date : 1 March 1984. This output will be achieved through the accomplishment of 6 surveys, 2 of which are planned in the project preparatory phase.

2) Forecast of the consumption of packaging materials and containers in the Arab Countries for the 5 year period 1985-1989 and recommendations regarding necessary investments in the packaging industry. Target date : November 1984.

3) Conclusions and recommendations regarding important aspects of the role of packaging in the national economy, to be formulated as the result of the following studies :

- Economy of energy and material consumption, October 1983 ;
- Re-usable versus one-way packaging (January 1984) ;
- Tariff and tax policies in the field of packaging (May 1984
- Harmonization of laws and regulations in the field of packaging (April 1985).

4) Knowledge of the foreign market requirements with regard to packaging, accumulated through the special survey, to be carried out between June 1984 and June 1985.

5) Recommendations on the needs and functions of an ARPAC pilot plan, as a basis for further UN assistance. Target Date : January 1985.

6) Regional packaging data bank, grouping all necessary economic and marketing information on packaging industries in the region. Target date : 1 September 1985.

7) Recommendations on the quality and measures to be taken with regard to the packaging of the goods imported by the Arab Countries. Target date : April 1985.

SECTION G - DESCRIPTION OF PROJECT ACTIVITIES

The Project activities could be divided into 3 main groups :

GROUP 1/ Activities related to the expansion of the IMEC services and facilities to commence regional functions. Implementing organization - IMEC with the assistance of AIDO and UNDP/UNIDO;

GROUP 2/ Activities involved in starting the Arab Regional Packaging Centre (ARPAC) functions, according to the approved work plan. Implementing organization : AIDO, IMEC, NACP, with the assistance of UNDP/UNIDO.

GROUP 3/ Activities connected with carrying out of the UNDP assistance, as outlined in the Project. Implementing agency : UNIDO in co-operation with AIDO and IMEC.

The activities of the Groups 1. and 2. are interrelated. Their timing and sequence has been planned according to the readiness of the IMEC's departments in order to achieve maximum effects in the shortest possible time.

Activities of the ARPAC should be developed gradually and concentrate in the first stage on assessing the present status of packaging industries of the region and identifying the priorities in their development.

Simultaneously, information and documentation, training and promotional activities should expand, based on the so far accumulated experience in various member countries. Activities of more technical nature, like standardization, testing and research and consultancy need specialized, qualified cadres, able to carry out meaningful work. This requires more time and many years of experience, therefore full-scale services in these areas should be expected in the further stages of ARPAC development.

Although in compliance with the UNDP guidelines a detailed Work Plan should be prepared when the project is approved, in order to facilitate programming of project activities and preparations to carry them out, a Work Plan for the first two years has been prepared and attached as Annex N.8.

The following activities are envisaged in the framework of the Mid-Term Programme :

Note : Activities marked with the asterix "*", do not require any project inputs.

N°	PROJECT ACTIVITY	STARTING DATE	PROPOSED DURATION (target date)
1	2	3	4
	<u>DOCUMENTATION AND INFORMATION SERVICE</u>		
1	Establishment of the information network (points of contact) in the Arab Countries to cover the region in order to collect and disseminate information on packaging.	December 1982	12 Months (1 December 1983)
2 *	Setting up a roster of Arab Experts and teachers in the field of packaging.	December 1982	Continuous
3	Expansion of the existing thesaurus of packaging terms.	January 1983	12 Months (1 January 1984)
4	Preparation and publication of the glossary of packaging terms in Arabic.	June 1982	24 Months (1 June 1984)
5	Publication of the regional packaging news Bulletin	June 1983 (first issue)	Continuous (quarterly, from 1 January 1985 bimonthly).
6 *	Full operation of the regional information network.		December 1983
7	Publication of the first regional Directory of Packaging Industries	September 1983	12 Months, Sept. 1984
8	Organization and running of the Packaging Inquiry Service.	September 1984	Continuous
9 *	Full-scale introduction of the computer-assisted collection, retrieval and dissemination system of information.		January 1986
10	Organization of one regional packaging congress cum exhibition in one of the Arab Countries.	Starting date for the preparation, Sept. 1985	Event shall take place in March 1985 for ten days at the time of the conference, NACP.

1	2	3	4
	<u>TRAINING ACTIVITY</u>		
11	Organization of 2 seminars for the decision makers and managers both from administration and industry, on packaging management and policies. Each seminar for 20 participants and 5 days duration.		
	I	April 1984	5 days
	II	April 1985	5 days
12	Seminar on substitution of packaging materials and containers . 20 participants.	September 1985	5 days
13	Organization of 2 residential courses for trainers. Each course for 20 participants and 10 days duration.		
	I	February 1984	10 days
	II	February 1986	10 days
14	Regional seminar for 20 marketing directors of the packaging users' companies (manufacturing food as well as industrial products for export) on the foreign market requirements regarding packaging and new approaches to the intra-regional Arab packaging production and supply. Duration : 5 days.	November 1984	5 days
15	Group training programmes for technical staff on specific subjects :		
15.1.	3 seminars on standardization and quality control : each for 20 participants and of 5 days duration (to be organized by ASMO)		
	I	June 1984	5 days
	II	June 1985	5 days
	III	June 1986	5 days
15.2.	2 in-plant training courses for factory engineers on the establishment and running the packaging testing and quality control laboratories. Duration : 15 days each.		
	I	November 1985	15 days
	II	November 1985	15 days
15.3.	In-plant training course on processing and dissemination of information for the members of the documentation and information regional network. 20 participants for 10 days.	May 1984	10 days

1	2	3	4
15.4.	Regional seminar on health requirements and compatibility of packaging materials in contact with food, pharmaceutical and cosmetic products. 20 Participants (to be organized by SASO).	September 1985	5 days
16 *	Preparation of the in-plant training programmes for engineers and technicians of the member-countries, involved in package production and use.	March 1986	2 Months, (May 1986)
17	Organization of the subsequent conferences of the Arab National Committees for Packaging (25 participants for 3 days each).		
17.1.	- The 5 th Conference	March 1983	3 days
17.2.	- The 6 th Conference	March 1985	3 days
18	Organization arrangements relating to the implementation of five group study tours of selected specialists from Arab Countries to the advanced centres of expertise.	1983 - 1986	Various.
19	Selection and preparation of training programmes for 25 candidates from Arab Countries for the UN Fellowships to be implemented according to the schedule which will be envisaged in the Work Plan.	1983 - 1986	Various
20	Realization of 2 documentary films, 30 minutes each, on experimental shipments and on food packaging systems.	September 84	6 Months (January 1985)
21	Adaptation of the existing audio-visual course for the needs of developing countries.	January 1985	6 Months (June 1985)

Research, Testing and Design Services.

Activities under this title have been divided into two sub-groups for easier recognition of the clear technical assistance tasks versus applied research ones.

A. TECHNICAL ASSISTANCE ACTIVITIES :

1	2	3	4
22	Packaging design services offering engineering and graphic designing works to the industrial and commercial organizations in Arab Countries as well as making prototypes of standardized packs to be adopted in the region.	January 1984	Continuous (December 1986)
23	Determination of technical requirements for packaging materials, containers and systems, as a basis for quality unification, and evaluation.	January 1984	Continuous (December 1986)
24	Adaptation of modern packaging technologies to the local conditions and needs.	March 1984	Continuous (December 1986)
25	Participation in the work-up of the regional quality specifications for packaging materials and containers.	January 1983	Continuous (December 1986)
26	Commencement of the consultancy service to the industries and trade in the countries of the region in the field of package manufacturing and use as well as proper choice of packaging machines.	January 1983	Continuous (December 1986)
27	Working-out a programme for and assisting in the establishment of packaging testing units in the Arab Countries to serve local industries in quality control and specifications conformity.	January 1983	Continuous (December 1983)

3. APPLIED RESEARCH ACTIVITIES

1	2	3	4
28	<p>Inception of research works in the following subjects :</p> <p>a. re-usable packaging</p> <p>b. Recycling of packaging wastes derivation from manufacturing process as well as municipal refuse.</p> <p>c. Machineability of packaging materials with special emphasis on locally made ones.</p> <p>d. Application and testing of high barrier multi-layer plastics materials.</p> <p>e. Substitution of packaging materials and containers (e.g. polypropylene versus cellophane, polystyrene versus polyvinylchloride, glass versus plastics, plastics versus tinfoil, etc).</p> <p>f. Search for new packaging materials based on locally available resources.</p>	<p>January 1984</p> <p>January 1984</p> <p>Sept. 1985</p> <p>June 1984</p> <p>June 1984</p> <p>March 1984</p>	<p>6 Months, June 1984</p> <p>12 Months, December 1984</p> <p>Continuous December 1985</p> <p>Continuous December 1985</p> <p>Continuous December 1985</p> <p>Continuous December 1985</p>
29	<p>Organization of the future field tests and trial shipments to identify mechanical and climatic hazards specific to different areas of the Arab region, as a basis for design and application of suitable packaging systems.</p>	<p>December 85</p>	<p>Continuous December 1986</p>
30	<p>Preparation of the programme for the pilot plant activities.</p>	<p>June 1985</p>	<p>6 Months December 1985</p>

1	2	3	4
	<u>STANDARDIZATION AND QUALITY CONTROL SERVICE</u>		
51	Completion and up-dating the catalogue of national and international standards as well as laws and regulations concerning packaging.	Sept.1982	12Months (August 1983)
52	Carrying out comparative analysis of packaging standards and regulations in the Arab Countries and elsewhere (mainly in export target countries), as the basis for regional packaging standardization.	Sept.1983	12 Months (August 1984)
53	Development of basic regional standards (terminology, classification, testing methods, dimensional system, marking for shipping).	June 1983	Continuous December 1986
54	Unification of the transport packaging dimensions in the region according to the international recommendations. Preparation of the relevant regional standard.	January 1984	12 Months December 1984
55	Carrying out a study on the present status and needs for improvement of quality control (especially on the factory level) in packaging industry in Arab countries.	March 1984	12 Months (February 85)
56	Preparation of principles and work plan for the introduction of quality certification for selected export packages.	Sept.1984	15 Months (December 85)
57	Establishment of the regional packaging quality certification system in the industry and trade for selected types of packaging, especially for exported products.	January 1986	12 Months December 1986
58	Setting up advisory service for the Arab Countries on standardization and quality control in the packaging industries.	March 1985	Continuous (December 198
59	Perusal and analysis of the developments in the international packaging laws and regulations and their impact on the exports.	Sept.1983	Continuous (December 198

1	2	3	4
	<u>TECHNO-ECONOMIC AND MARKETING STUDIES</u>		
40	Implementation of the sectoral studies on packaging as a basis for the integrated development programme of the Arab packaging industries. :		
	a - Paper and carton packaging 1)	April 1983	3 months
	b - Plastics packaging 1)	Jan. 1985	3 months
	c - Glass packaging	Sept.83	3 months
	d - Metal packaging	Sept.83	3 months
	e - Wooden and ligno-cellulosic packaging	January 84	2 months
	f - Textile packaging	January 84	2 months
41	Quantitative and qualitative assessment of the consumption of packaging materials and containers in the Arab Countries in the 5 year period 1985-89, based on the comparative analysis of the forecasted demand and supply and actually installed production capacities of packaging media.	March 84	8 months Nov. 84
42	Study on the improvement of food packaging in the Arab Countries. Study will be the contribution to the regional Food Security Programme and should be coordinated with the latter.	April 85	6 months
43	Survey on the Arab Governments' tariff and tax policies in the field of packaging, as a basis for the preparation of the regional policy in this field.	January 84	4 months
44	Study on economizing energy and material consumption in the packaging industry.	July 83	5 months
45	Study on re-usable versus one-way packaging in the Arab economies (Activity N° 23.a. refers).	October 83	3 months
46	Study on environmental implications 2) of the manufactured and use of packaging.	Sept. 85	3 months
47	Survey on harmonization of laws and regulations on packaging applied in the Arab Countries.	January 85	3 months
48	Assessment and analysis of the packaging requirements imposed by the Arab main export markets.	June 84	12 months

- 1) The two first studies will be implemented in the Preparatory Phase Project.
- 2) Implementation of this study by the UNEP will be investigated.

1	2	3	4
49	Survey on the need and functions of a packaging pilot plant in the framework of the ARPAC (Activity No. 30 refers).	Oct.84	3 months
50 *	Establishment and development of the regional packaging data bank.	Sept.85	Continuous Dec. 1986
51	Assessment and analysis of the packaging of commodities imported by the Arab Countries from the viewpoint of preventing damages and losses.	Sept. 84	6 months February 85

SECTION H. INPUTS

a. Governments' inputs

The Governments of the Arab Countries represented by the AIDO agree to designate IMEC to act in the name of the Arab Regional Packaging Centre for the period of three - four years during which necessary services in the field of packaging will be provided by IMEC in co-operation with AIDO and UNDP/UNIDO to all Arab Countries and final juridical and physical structure of the ARPAC will be accomplished. The Governments also agree to co-operate in the implementation of Project activities in terms of direct participation as well as contribution in cash and kind towards personnel, equipment and other relevant facilities.

Contribution in kind may include organization of certain activities chosen from the Work Plan such as training courses, seminars, conferences, etc. at the expense of a host country, or a regional body ; putting at the disposal of IMEC/ARPAC national staff to reinforce the local cadres; carrying-out cost free selected research works and/or studies by the specialized national or regional bodies ; offering fellowships to up-grade professional skill of packaging specialists, etc.

1. National Staff

1.1. Project management staff

In order to effectively perform the programme activities , the Project management staff will be appointed for the total duration of the project as follows :

- Project Director,
- Deputy Project Director,
- Project Secretary
- Administrative Assistant.

Note 1/ Taking into account ample practical experience of the present IMEC management in running the national UNDP assisted project and attempting to reduce the Project costs, it is suggested that the Institute's General Director and Technical Director are entrusted with the first two functions having as indemnity for the additional duties only a fraction of a full-scale remuneration.

1.2. Supporting Staff

In addition to the above posts the Governments will make available the services of the following supporting staff :

- Engineer Technologist (Packaging), specialized in the classification and abstraction of the incoming technical literature and documents for the purpose of the regional computer assisted information service ;

- Chief of the regional inquiry service designed to answer queries from packaging manufacturers, users and other interested industrial and trade sectors on the problems related to packaging.

The full cost of this project personnel component, including international travel, will be borne by the budget covering Governments' contributions.

Any other counterpart staff needed for the successful implementation of the Project is not covered by the budget, as it is understood that the organizations concerned are prepared to support the Project activities to the extent necessary.

2. Co-Financing of Project activities

In accordance with the budget for Governments' contribution to the Project, the Governments will provide the funds necessary to co-finance the expenditures related to the particular Project activities.

	<u>US \$</u>
- Studies	127.500
- Group Training activities (AIDO + ASMO)	381.200
- Documentation and Information Activities	111.200
- Standardization Activities (ASMO)	170.000
- Technical Assistance Activities	198.000
- Applied Research Activities	45.000
- Administration/Secretariat/Supporting Staff	546.000
- Equipment	63.500
- Miscellaneous	66.000

A total amount of US Dollars 1.709.000 will be provided in cash and kind by the Governments.

The Government of Morocco is also ready to contribute in kind to the Project in terms of buildings, equipment, personnel and general services, amounting to appr. US Dollars 3.100.000 (Annex N.9 refers).

Note 2/ It may be expected that the host organizations in the co-operating countries, carrying out project activities (especially group training programmes) will generously contribute to the implementation of such activities. Therefore the needs for supplementary funding are not explicitly spelt out and expressed in money terms in the budget.

Note 3/ The cost of the Studies component shall be shared by the Governments and UNDP. The Governments' share consists mainly of the local costs.

b. UNDP INPUTS

The UNDP inputs amounting to US Dollars 1.972.500 will be used to cover the project activities to the extent envisaged in the Project Budget for UNDP Contribution. The summarised breakdown of expenditures outlined for the participation components is as follows :

	<u>US \$</u>
- Project personnel (consultants)	473.600
- Sub-contracts (Studies)	451.400
- Group training activities (incl. Study Tours)	544.700
- Fellowships	112.500
- Equipment	339.500
- UN Staff travel	30.000
- Miscellaneous	20.800
	<hr/>
<u>T O T A L</u>	1.972.500 =====

Note 1/ the training components will be financed jointly from the UNDP and Governments' share of inputs.

Note 2/ the cost of studies component is included in the subcontracts line.

No permanent UNDP/UNIDO Project personnel will be provided through UNDP inputs as staffing of the Project Headquarters will be the responsibility of Governments represented by AIDO. Following UNDP standard procedures, the Project budget provides for UN staff travel in connection with their participation in project evaluation and review meetings, and for their participation in the regional conferences.

SECTION I. PREPARATION OF THE WORK PLAN

A detailed Work Plan for the implementation of the project will be prepared by the Project Director in consultation with other Project staff and substantive IMEC Departments.

This will be done at the start of the project and brought forward periodically.

The agreed upon Work Plan will be attached to the Project Document as Annex 1 and will be considered as part of that document.

In order to facilitate programming of the project activities and preparations to carry them out, a provisional work plan for the first two years has been prepared, as envisaged in Annex N° 3.

SECTION J. FRAMEWORK FOR EFFECTIVE PARTICIPATION OF NATIONAL AND INTERNATIONAL STAFF IN THE PROJECT

The activities necessary to produce the indicated outputs and achieve the project's immediate objective will be carried out jointly by the national and international staff assigned to it.

The respective roles of the national and international staff will be determined by their leaders, by mutual discussion and agreement, at the beginning of the project and a framework for effective participation of national and international staff in the project set out.

The framework, which will be attached to the Project Document as an annex, will be reviewed from time to time.

The respective roles of the national and international staff shall be in accordance with the established concept and specific purpose of technical co-operation.

SECTION K. DEVELOPMENT, SUPPORT, COMMUNICATION

1/ Direct communication channels and contact persons should be established between the implementing, executing and co-operating parties : IMEC-AIDO-UNDP/UNIDO and National Packaging Committees in the Arab Countries ; in order to ascertain efficient execution of the Project activities.

2/ The experience gained so far from the implementation of the national project as well as the current preparatory assistance phase indicates the importance of the bi-annual working meetings of the Project management with the UNIDO back-stopping officer, one in Vienna and one in Casablanca to discuss and clarify matters arising in the course of action, and finding out the on-the-spot solutions.

3/ Terminal reports on implementation of Project activities which are of interest to the UN system and International Organizations which participated in and contributed to the development of packaging industry in the region, should be communicated to them. The Project Director will decide in mutual understanding with UNIDO which reports will be released and which organizations shall be invited to participate in the implementation of Project activities.

4/ Consultants' reports prepared under the technical assistance component of the Project are considered confidential. These reports are destined for the exclusive use of the national and regional organizations taking part in the Project.

SECTION L. PRIOR OBLIGATIONS AND PREREQUISITES

1/ Prior Obligations (Governments' contribution)

1.1. The Governing Council of AIDO at their meeting in Taif, 26 October 1982 reiterated the previously taken Decision on the establishment of the Arab Regional Packaging Centre (Resolution N° 31) and pursuance of the ratification procedure of the Convention (Section D - page 30 refers).

1.2. The Council also approved the mid-term programme as envisaged in the Draft Project Document.

1.3. Provision for legal authority to IMEC to act on behalf of the AIDO and ARPAC ;

1.4. Appointment of the Project Director.

1.5. Determination of the Governments' contribution to the project.

2/ Prerequisites (Governments' contribution)

2.1. Preparation and signing of the Agreement between AIDO and the Moroccan Authorities concerning the implementation of the Project.

2.2. Recruitment of the following staff members to IMEC:

2.2.1. Technical Director,

2.2.2. Chief of the Documentation and Information Department,

2.2.3. Chief of the Training Department.

(Two last posts have been already filled out).

3/ Prior Obligations (UNDP/UNIDO Contribution)

3.1. Mobilization of the inputs, in the required quantities and of the required quality, which have to be procured directly and delivered to the Project on a timely basis.

4/ Prerequisites (UNDP/UNIDO Contribution)

4.1. Critical re-evaluation of the experts in packaging rostered with UNIDO and preparation of a list of potential candidates for submission to and selection by IMEC soon after the approval of the Project.

4.2. Release of some Project funds prior to its final approval to finance selected activities mutually agreed upon by the Project Director and UNDP/UNIDO and implementation of which is vital for starting up the Project. Annex N° 10 refers.

5/ The Project Document will be signed by the UNDP and UNDP assistance to the project will be provided, subject to UNDP receiving satisfaction that the prerequisites listed above have been fulfilled, or are likely to be fulfilled. When anticipated fulfilment of one or more prerequisites fails to materialize, UNDP may, at its discretion, either suspend or terminate its assistance.

SECTION M. FUTURE UNDP ASSISTANCE

Nature of the Project and particularly its institutional framework and long-term objectives indicate that the future UNDP assistance may be required. This could develop in two main directions :

1/ Assistance in converting the ARPAC into a juridically and physically independent regional organism, where advice, expertise and additional personnel and equipment inputs could be envisaged ;

2/ Assistance in the establishment of pilot plants for selected branches of packaging industry, which would enable the ARPAC to broaden its research and development works and speed up introduction of their results into practice. This subject has been reflected in the Section G. Activities , where special study as well as preparation of the programme for packaging pilot plant are included.

PART III: SCHEDULES OF MONITORING, EVALUATION AND REPORTS

SECTION A. TRIPARTITE MONITORING REVIEWS ; TECHNICAL REVIEWS

The Project will be subject to periodic review in accordance with the policies and procedures established by UNDP for monitoring project and programme implementation.

The tripartite review meetings will be held once a year. Because of the complexity of the Project, provisions will be made to assure participation of all the organizations involved which are partly co-responsible for the successful implementation of the Project.

A technical review will be held in 1985 to assess the development of research works and the level available of laboratory services. For this purpose an independent consultant should be invited to take part in the review together with the Executing Agency.

SECTION B. EVALUATION

The project will be subject to evaluation in accordance with the policies and procedures established for this purpose by UNDP, the organizations, terms of reference and timing of the evaluation will be decided by consultation between the Governments, UNDP and the Executing Agency concerned.

SECTION C - PROGRESS AND TERMINAL REPORTS

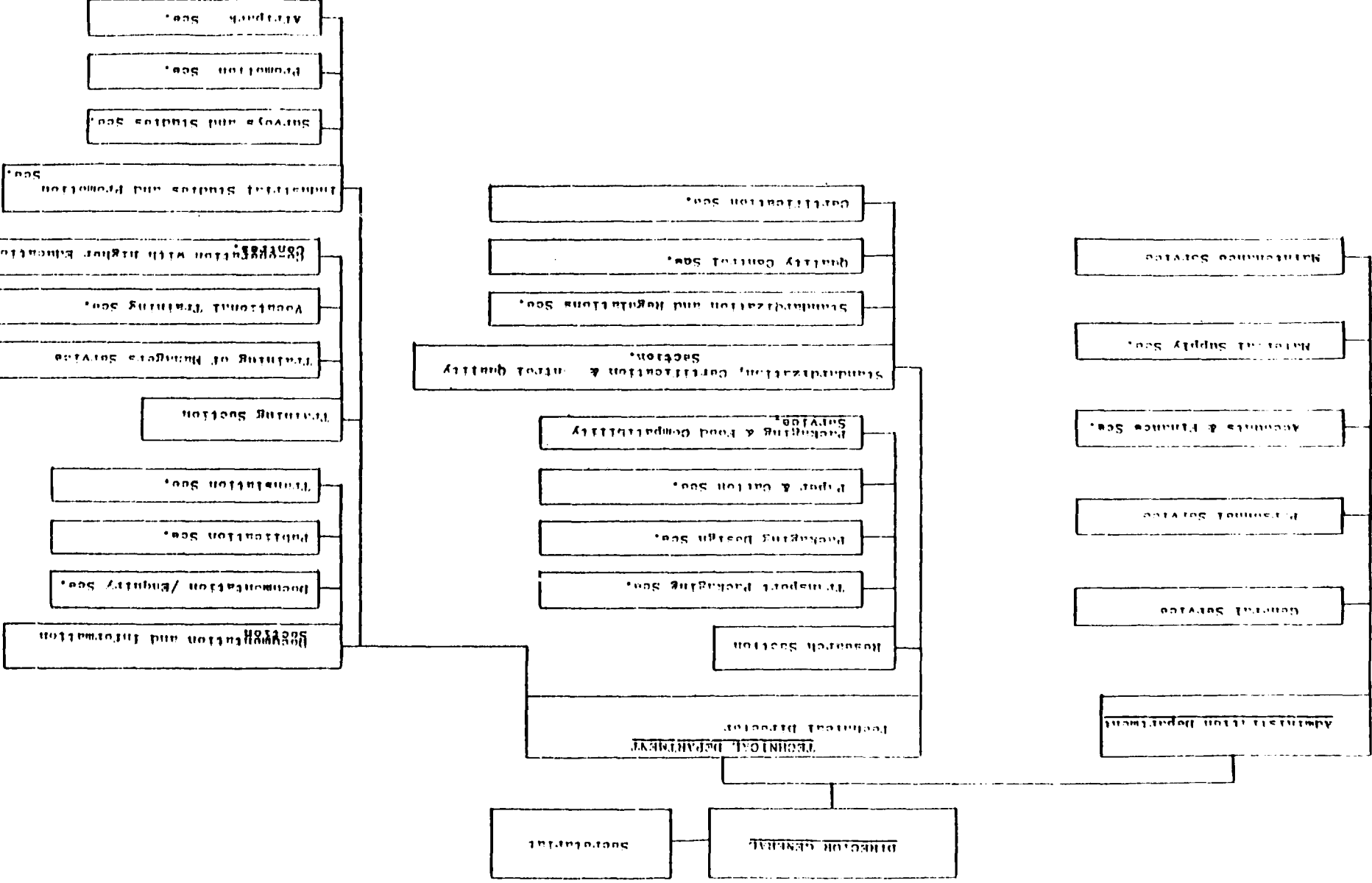
Progress and terminal reports will be produced by the Project Director in accordance with UNDP policies and procedures and following relevant instructions contained in the UNDP Team Leaders Manual.

Separate reports shall be prepared for each group of activity in order to make evaluation more specific. Brief summary reports on the work carried out by each consultant will be submitted to the Executing Agency. This is in addition to the technical reports which may not be released for circulation.

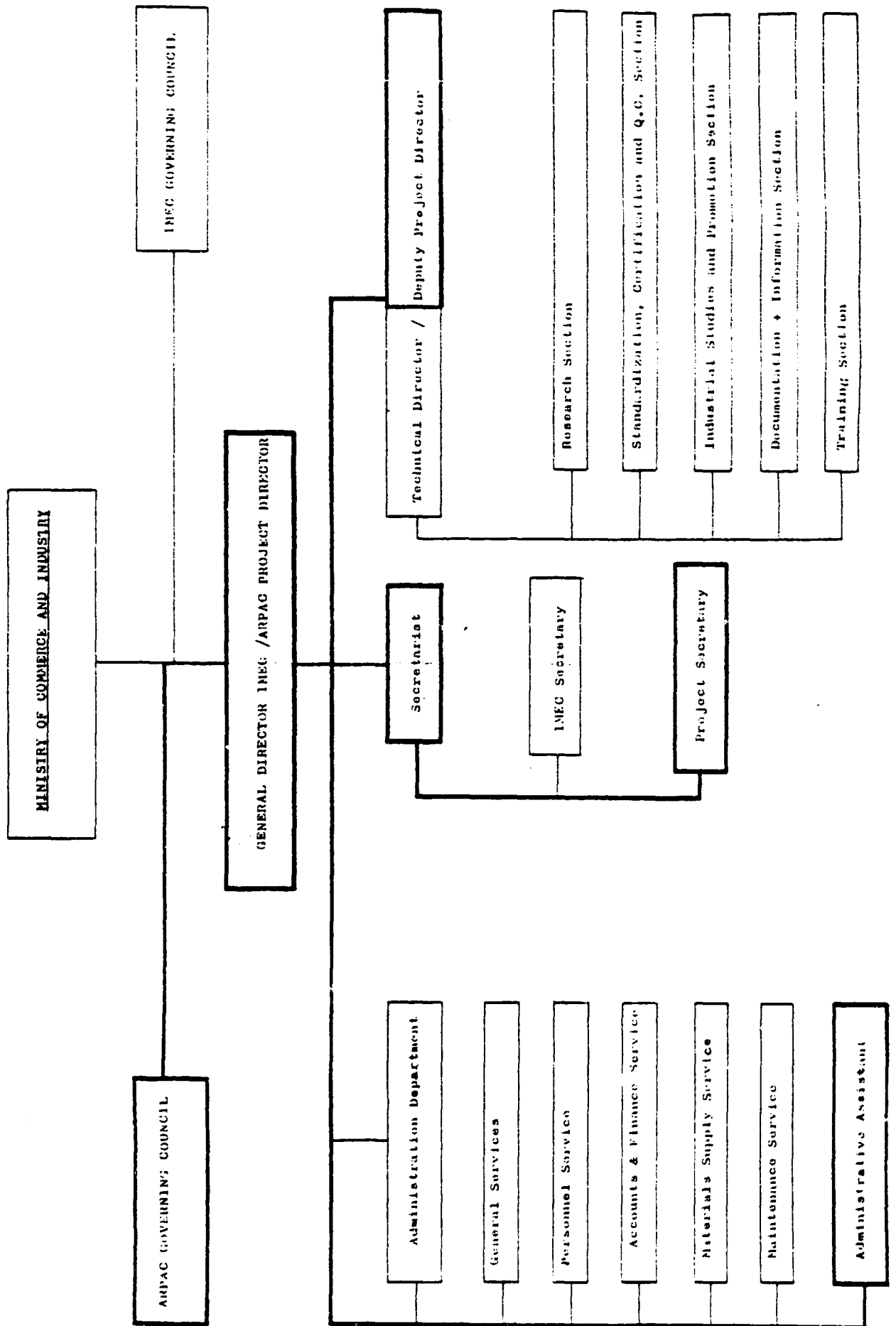
PART IV. B U D G E T S
SECTION A. PROJECT BUDGET COVERING UNDP CONTRIBUTION (in US \$)
COUNTRY : REGIONAL PROJECT FOR THE ARAB COUNTRIES.
PROJECT N. : DP/RAB/
TITLE : ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE

Serie N°	PROJECT COMPONENT	TOTAL		1983		1984		1985		1986	
		m/m	US \$	m/m	US \$	m/m	US \$	m/m	US \$	m/m	US \$
1	2	3	4	5	6	7	8	9	10	11	12
10	<u>Project Personnel Component</u>										
11	Short term consultants	64	473.600	8	59.200	24	177.600	22	162.800	10	74.000
16	UN Staff Travel		30.000		6.000		7.000		8.000		9.000
19	Component total	64	503.600	8	65.200	24	184.600	22	170.800	10	83.000
29	<u>Subcontracts (Studies)</u>		451.400		88.800		214.600		148.000		
30	<u>Training Component</u>										
32.01	Group training Programmes (seminars, courses, conferences).		462.200		94.700		173.000		141.700		52.800
32	Fellowships	45	112.500	10	25.000	17	42.500	12	35.000	4	10.000
32.03	Study tours		82.500		7.500		22.500		30.000		22.500
39	Component total	45	657.200	10	127.200	17	238.000	12	206.700	4	85.300
49	<u>Equipment</u>		339.500		80.000		170.000		50.000		39.500
59	<u>Miscellaneous</u>		20.800		4.000		6.000		6.000		4.800
99	<u>UNDP TOTAL CONTRIBUTION</u>	109	1.972.500	35	365.200	41	813.200	32	581.500	14	212.600

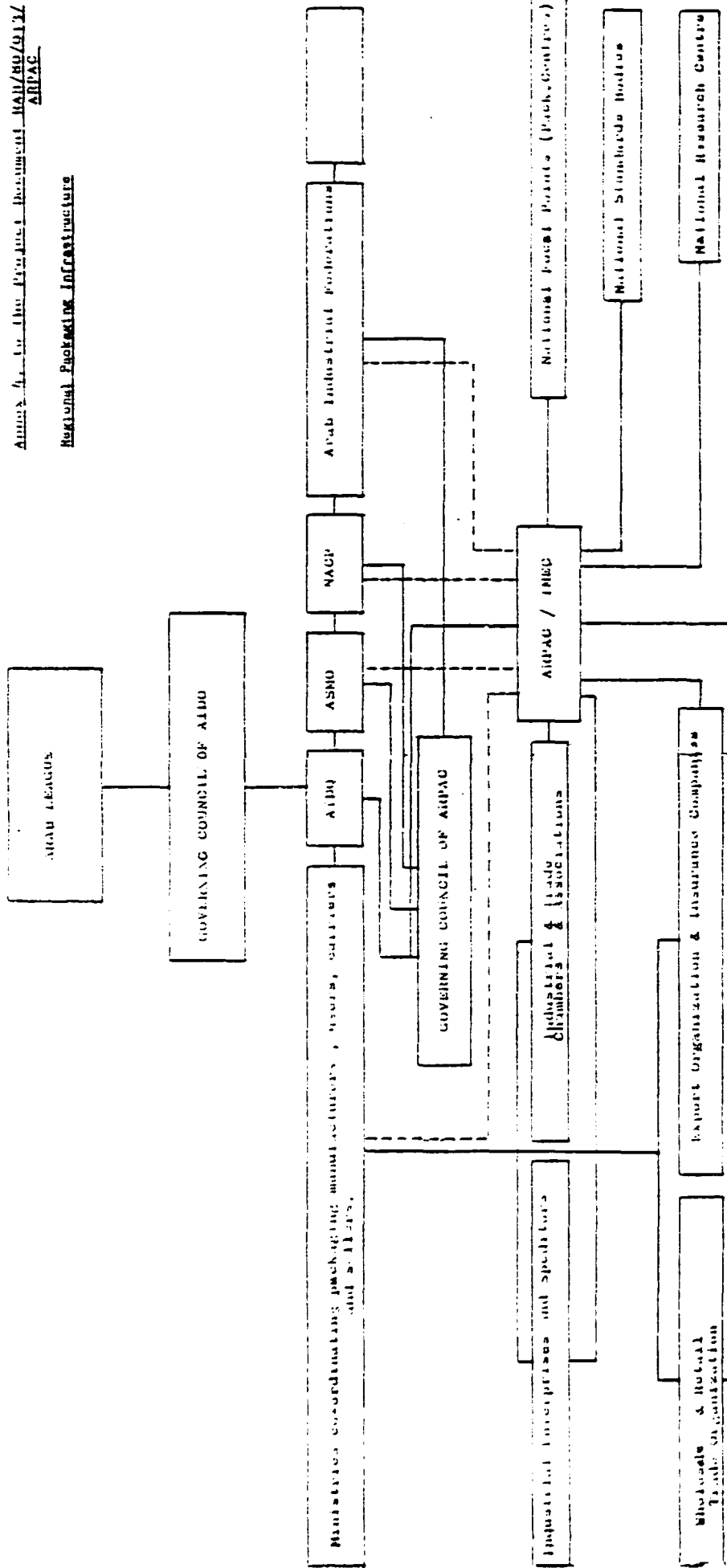
THE NEXT STRUCTURE OF THE MOROCCAN
INSTITUTE OF PACKAGING



ANNEX N.1 to the Project Document RAH/RD/013 / ARPAC
 Expanded IMEC Structure with the built-in ARPAC Functions



National Protecting Infrastructure



CONSULTANT SPECIALITIES REQUIRED FOR THE PROJECT
DP/RAB/ - ESTABLISHMENT OF THE ARAB
REGIONAL PACKAGING CENTRE

S.N°	CONSULTANT SPECIALITY	ACTIVITY NUMBER	1983 m/m	1984 m/m	1985 m/m	1986 m/m
1.	Packaging technologist specialized in packaging thesauri for computer assisted information processing.	3	2			
2.	Packaging documentalist specialized in terminology.	4		1		
3.	Packaging Journalist specialized in technical and promotional aspects of publications.	5	1	1	1	
4.	Packaging generalist with ample experience in management and policies.	11		1	1	
5.	Packaging technologist specialized in substitution of packaging materials.	12	1			
6.	Packaging generalist with ample experience in training the trainers.	13		1		1
7.	Packaging technologist or industrial economist specialized in market research and packaging for export.	14		1		
8.	Specialist in standardization and quality control in the field of packaging.	15.1.		1	1	1
9.	Expert in packaging documentation and information specialized in running the Documentation + Information Centre and organizing information network.	15.3.		1		
10.	Packaging technologist specialized in testing and evaluating compatibility of packaging materials with food, pharmaceutical and cosmetic products.	15.4			1	
11.	8 packaging experts of various specialities participating as reporters at 2 regional conferences on packaging.	17	2		2	
12.	Training experts in the field of packaging familiarized in the modern audio-visual aids.	21				3 (UNDP) 3 (AIDO)

CONSULTANT SPECIALITY		ACTIVITY NUMBER	1983 m/m	1984 m/m	1985 m/m	1986 m/m
13.	2 Industrial designers specialized in packaging.	22		2	1	1
14.	2 Packaging technologists specialized in evaluating packaging systems.	23	1	2	3	
15.	2 Packaging technologists specialized in adapting modern technologies to local conditions.	24		2	2	
16.	3 Experts specialized in organization and running packaging testing laboratories.	27		2	2	2
17.	Packaging technologist with ample practical experience in evaluating technical, economic and ecological aspects of the re-usable packaging containers.	28 a		2		
18.	Packaging technologist specialized in recycling of packaging wastes.	28 b		2		
19.	Expert in machineability of packaging materials.	28 c				2
20.	Expert in application and testing of high-barrier, multi-layer plastics materials.	28 d		2		
21.	Packaging technologist with sound practical experience in substitution of packaging materials and containers.	28 e			2	
22.	Expert in developing new packaging materials from locally available raw materials.	28 f				2
23.	3 Experts in packaging standardization, specialized in terminology, testing methods, dimensional system and marking for shipping.	33	1	1	1	
24.	Expert in packaging standardization with ample experience in unification of transport packaging.	34		1		
25.	Expert in quality control familiarized with the organization of the q.c. in packaging industry.	35			1	
26.	Packaging technologist specialized in packaging certification	36 and 37		1	1	1
<u>TOTAL PER ANNUM :</u>			3	24	25	10
<u>GRAND TOTAL :</u>			UNDP - 64 = US \$ 473. 600			
			AIDO - 3 = US \$ 22.200			
			67 = US \$ 495. 800			

FELLOWSHIP SUBJECT PROPOSALS FOR THE PROJECT
DP/RAB/ ... ESTABLISHMENT OF THE ARAB
REGIONAL PACKAGING CENTRE

-0-

S.N°	FELLOWSHIPS SUBJECT	Activity Number	1985 m/m	1984 m/m	1985 m/m	1986 m/m
1.	Organization and management of a packaging documentation and information centre.	1,6 and 9	3			
2.	Classification, indexing and computer assisted processing of information.	3 and 9		3		
3.	Training methods, facilities and equipment	11 to 21		3		
4.	Packaging of Agriculture and food products	26,28,41			2	
5.	Packaging design	22		3	2	
6.	Selection and evaluation of packaging systems.	23	3		2	
7.	Re-usable packaging - principles and application	28 a	2			
8.	Machineability of packaging materials	28 c			2	
9.	Testing and evaluation of multi-layer plastics films	28 d			3	
10.	Substitution of packaging materials and containers	28 e		2		
11.	Packaging pilot plants - concept and functioning	50			3	
12.	Standardization in the field of packaging . Programming and management.	31 to 39	1			
13.	International packaging laws and regulations	31 to 39	2			
14.	Packaging dimensional system and its correlation with transport and storage facilities	34		2		
15.	Quality control in packaging industry.	35		2		
16.	Packaging quality certification principles and practice.	36 and 37		2		2
TOTAL PER ANNUM			10	17	14	4
GRAND TOTAL :			45 m/m x 20 persons x \$ 2.500 = US \$ 112.500 *****			

LIST OF EQUIPMENT FOR THE PROJECT DP/RAB/
ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE

-0-

I. UNDP-provided equipment

	US \$ (Appr.)
1. <u>Equipment for Documentation and Information Centre</u>	
1.1. Books and documents	20.000
1.2. Offset printing machine with the plate making unit	41.000
<u>Subtotal :</u>	<u>\$ 61.000</u>
2. <u>Equipment for Training Activities</u>	
2.1. Audio-visual course on packaging	5.000
2.2. Video set (camera, recorder and TV set)	5.000
2.3. Visual aids *	1.000
<u>Subtotal :</u>	<u>\$ 11.000</u>
3. <u>Equipment for testing laboratories</u> <u>Chemical and compatibility testing</u>	
3.1. Gas chromatograph	40.000
3.2. Infra red spectrophotometer	20.000
3.3. U - V and visible spectro-photometer *	15.000
3.4. Viscosity meter for liquids and plastic resins	1.500
3.5. Density meter for liquids	2.000
3.6. Gas permeability tester (OXTRAN)	15.000
<u>Subtotal :</u>	<u>\$ 93.500</u>

* If not purchased from the national project budget DP/MOR/73/002.

Glass packaging testing

3.7. Polariscopes with accessories	3.000
3.8. Wall thickness meter	1.000
3.9. Shadowgraph	1.000
3.10. Bottle profilometer	1.500
3.11. Head space gauge	1.000
3.12. Impact strength meter	1.000
3.13. Thermal shock tester	2.000
3.14. Vertical load tester	3.000
3.15. Scratch tester	1.000
3.16. Hydrostatic pressure tester	2.000
3.17. Gas pressure tester	2.500
3.18. Crown corker	1.500
3.19. Line simulator	1.000
3.20. Closure torque meter	500

Subtotal : \$ 22,000

Retail metal packaging testing

3.21. Ericksen deep drawing tester	4.000
3.22. Tinplate impact tester	3.500
3.23. Tinplate bend tester	2.000
3.24. Tin stripper	3.500
3.25. Lacquer coating hardness tester	2.000
3.26. Lacquer coating porosity meter	3.000
3.27. Electronic tin coating analyser	6.000

Subtotal : \$ 24,000

Transport metal packaging testing

3.28. Hydrostatic pressure tester for drums	3.000
3.29. Vacuum resistance tester for drums	4.000
3.30. Leakage tester for drums	4.000

Subtotal : \$ 15,000

Plastics and paper materials testing

3.31. Heat sealing tester sentinel	7.000
3.32. Hazemeter	3.000
3.33. Gloss meter for plastic films	3.000
3.34. Double folding endurance meter for papers and plastic films	3.500
3.35. Clarity meter	5.000

Subtotal : 5 21,500

4. Equipment for design centre

4.1. Photo camera type Hasselblad FC, Ref. 10324 with accessories *	6.000
4.2. Projectors, background screens	7.000
4.3. Aerograph Olympos Ref. PB 202 with Compressor *	1.000
4.4. Editing table	2.000

Subtotal \$ 16.000

Sample making machines

4.5. Sample making table for corrugated boxes with accessories	25.000
4.6. Sample making equipment for wooden boxes with accessories	25.000

Subtotal \$ 50.000

Miscellaneous

5.1. Project car	10.000
5.2. Minibus	20.000

Subtotal \$ 30.000

* If not purchased from the national
Project Budget DP/MOR/73/002.

T C T A L 5 342,000

II. Government-provided equipment

Miscellaneous

US \$ 65,500

342,000

GRAND TOTAL

US \$ 407,500

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PROVISIONAL WORK PLAN

for the first two years of the Project
Activities

-0-

A - Preliminary Activities

S.N.	Description of the activity	Location	Starting date	Proposed Duration (Target Date)
1.	Finalization of the Project Document	Casablanca/ New York/ Vienne	1 Dec. 1982	3 months
2.	Submission to the UNDP and the Governments for approval	New York/ Various/ Rabat / Vienna	1 March 1982	
3.	Approval by the Governments and UNDP/UNIDO			1 June 1983

B - Pre-Project Activities

S.N.	Description of the activity	Location	Starting date	Proposed Duration (target date)
1	Appointment of the Project management : - Project Manager - Deputy Project Manager - Secretary to the Project	Casablanca/ Various		1 January 1983
2	Preparation of the detailed Work Plan for the Project	Casablanca /Vienna	1 Febru.83	1 month
3	Provision for legal authority to IMEC to act on behalf of the AIDO and ARPAC.	Various	1 March 83	1 month

4.	Appointment of Technical Director, Chief of Documentation and Information Department and Chief of the Training Department.	Casablanca		1 Dec. 1982
5.	Critical re-evaluation of the experts in packaging roster of UNIDO and preparation of a list of potential candidates for the Project.	Vienna	1 March 1983	2 Months

C - Project Activities

S.N.	Description of Project Activity	Location	Starting Date	Proposed Duration (Target Date)
I.	Documentation and Information -----			
1.	<u>Establishment of Information Network in Arab Countries.</u>	Various	1 December 1982	12 Months
	a. Identification of the organizations in Arab Countries suitable to act as focal points, receiving, transferring and feeding back information on packaging.	Casablanca (IMEC in cooperation with AIDO)	1 December 1982	3 Months
	b. Preparation of the terms of reference for the focal points and communication system within the Network.	Casablanca (IMEC in cooperation with AIDO)	1 January 1983	2 Months
	c. Preparation and sending out of formal request to the Governments of the Arab States to appoint responsible persons.	Casablanca/ Various	1 March 1983	1 Month
	d. Nomination of focal points and responsible persons in the Arab Countries.	Various	1 April 1983	5 Months
	e. Starting regular communication and sending out first information items (bulletins, abstracts, etc) from the Documentation and Information Centre of IMEC to the focal points.	Various	1 Sept. 1983	Continuous

	f. Disseminating information from the focal points to the end users.	Various	1 October 1983	Continuous
	g. Gathering information by the focal points and feeding back to the Documentation / Information Centre.	Various	1 November 1983	Continuous
	h. Full operation of the regional Documentation/Information Network.	Various	1 December 1983	Continuous
2.	<u>Setting-up a roster of Arab experts and teachers in the field of packaging.</u>	Casablanca (IMEC)	1 December 1982	Continuous
	a. Search all available documentation of the seminars, congress, etc. as well as missions and other sources to identify experts and teachers from Arab Countries with packaging.	Casablanca (IMEC)	1 December 1982	1 Month
	b. Prepare and distribute inquiry to the NACP's, professional associations, universities, regional organizations, etc. requesting for names of Arab experts and teachers on packaging.	Casablanca (IMEC)	1 December 1982	1 Month
	c. Setting up the roster	Casablanca (IMEC)		1 January 83
	d. Collect the answers to the inquiry and evaluate the results.	Casablanca	1 January 1983	4 Months
3.	<u>Expansion of the existing thesaurus of packaging terms.</u>	Casablanca	1 January 1983	12 Months
	a. Translation into Arabic and English.	Casablanca (IMEC) and Amman (ASMO)	1 January 1983	3 Months
	b. Feed into the memory of the micro-processor	Casablanca	1 April 1983	1 Month
	c. Send out to the member countries for evaluation and supplement.	Various	1 May 83	6 Months
	d. Rectification of the thesaurus according to the results of the action p.d.	Casablanca (IMEC)	1 October 1983	1 Month
	e. Full-scale utilization of the thesaurus in the activities of the Documentation Information Centre.	Casablanca (IMEC)		1 January 84

4.	<u>Preparation and publication of the Glossary of packaging terms in Arabic language.</u> a. Translation of the packaging terms into Arabic (using results of the activity N.3) b. Working out definitions of packaging terms. c. Publication of the Glossary	Amman (ASMO) Amman (ASMO) Amman/Casablanca Amman (ASMO)	1 June 1982 1 June 1982 1 July 1983 1 January 1984	24 months 9 months 6 Months 6 Months (1 June 1984)
5.	<u>Publication of the regional Packaging News Bulletin.</u> a. Assess and analyse the mailing list. b. Elaborate the concept, scope, contents and outlook of the Bulletin. c. Establishment of the network of regional correspondents of the Bulletin and members of the editing staff. d. Selection of the material and authors and preparation of the contents. e. Preparation of printing and publication of the first issue of the Bulletin (Quarterly) f. Second issue of the Bulletin g. Six editions in 1984	Casablanca (IMEC) Casablanca (IMEC) Casablanca (IMEC) Various Casablanca (IMEC) and regional Doc./ Inf. network Casablanca (IMEC) Casablanca (IMEC) Casablanca (IMEC)	1 June 1983 1 June 1983 1 June 1983 1 July 1983 1 August 1983 1 Sept. 1983 1 January 1984	Continuous 1 Month 1 Month 5 Months 5 months 2 Months (1 October 83) 1 January 84 1 January 85
6.	<u>Publication of the first regional Directory of Arab Packaging Industries.</u> a. Selection of an organization for subcontracting. b. Preparation of the contract and detailed terms of reference.	Various Casablanca Casablanca (IMEC) Casablanca (IMEC)	1 Sept. 1983 1 Sept. 1983 1 October 1983	12 Months 1 Month 1 Month

6.	c. Preparation of the questionnaire to the packaging manufacturers and users and despatch thereof.	Various	1 Nov.1983	1 Month
	d. Collection and arrangement of the data.	Various	1 Jan. 1984	6 Months
	e. Publication of the Directory	Various	1 July 1984	2 Months (1 Sept.84)
7.	<u>Organization and running of the Packaging Inquiry Service.</u>	Casablanca (IMEC)	1 Sept.84	Continuous
	a. Appointment of the staff responsible for running the service , preparation of the terms of reference and the inter-office co-ordination system.	Casablanca (IMEC)	1 Sept.84	1 Month
	b. Working out methods of functioning and performing activities by the Inquiry Service	Casablanca (IMEC)	1 October 1984	1 Month
	c. Preparation of promotional material , explaining the role and functioning of the Inquiry Service and arrange for wide distribution of this material throughout the region, including publication in the newspapers and professional magazines.	Casablanca (IMEC)	November 84	2 Months
3.	<u>Organization of the regional Packaging Congress and Exhibition</u>	Casablanca/ Various	1 Sept.1985	19 Months (March 1985)
	a. Preparation of the organizational framework, and the preliminary program of the events.	Casablanca (IMEC)	1 Sept.1985	1 Month
	b. Selection of the subcontractor responsible for the organization of the Exhibition and preparation of the contract and the duties.	Casablanca (IMEC)	1 October 85	3 Months
	c. Working out thematics and the program of the Congress, selection of the reporters and commissioning the reports	Casablanca (IMEC)	1 January 84	3 Months

8.	<p>d. Preparing promotional literature and invitations to the Congress and mailing to all concerned.</p> <p>e. Following up secretarial work for the Congress</p> <p>f. Supervising the subcontractor regarding preparations for the Exhibition.</p>	<p>Casablanca (IMEC)</p> <p>Casablanca (IMEC)</p> <p>Casablanca/ Various</p>	<p>1 April 84</p> <p>1 June 1984</p> <p>1 January 1984</p>	<p>2 Months</p> <p>Continuou</p> <p>Continuou</p>
9.	<p><u>UNIDO CONSULTANTS</u></p> <p>a. Consultant on the packaging thesauri for computer assisted information processing.</p> <p>b. Consultant on packaging terminology</p> <p>c. Consultant on technical and promotional publications</p>	<p>Casablanca (IMEC)</p> <p>Casablanca/ Various</p> <p>Casablanca</p>	<p>1 October</p> <p>1 July 1983</p> <p>1 June 1983 1 March 1984</p>	<p>5 Months</p> <p>1 Month</p> <p>1 Month 1 Month</p>
10.	<p><u>UNIDO Fellowships</u></p> <p>a. Organization and management of a packaging documentation and information centre.</p> <p>b. Classification, indexing and computer assisted processing of information.</p>	<p>Various</p> <p>Various</p>	<p>1 April 1983</p> <p>1 February 1984</p>	<p>3 Months</p> <p>3 Months</p>

S.N.	DESCRIPTION OF PROJECT ACTIVITY	Location	Starting Date	Proposed Duration (Target Date)
II.	T R A I N I N G =====			
1.	<u>Seminar on Substitution of packa- ging materials and containers (20 participants)</u>	Various	1 Sept.83	5 days
	a. Selection of responsible organization and working out the programme.	Casablanca/ Various	1 Jan. 83	1 Month
	b. Selection of the regional lecturers and the UNIDO Consultant commissioning the work.	Casablanca/ Various	1 Febr.83	1 Month
	c. Inviting participants from the member countries.	Various	1 Febr.83	2 Weeks
	d. Preparing necessary audio-visual aids and detailed didactic programme of the seminar	Various/ Casablanca	1 March 83	3 Months
	e. Collection of lectures and other teaching aids and preparation of the files.	Various	1 June 83	3 Months
	f. Carrying out the seminar	Various	1 Sept.83	5 days
	g. Preparing the report and evaluation of the seminar together with recommendations	Various	6 Sept.83	2 Weeks

2.	<u>In-plant training course for factory engineers on the establishment and running the packaging testing and quality control laboratories</u>	Casablanca (IMEC)	1 Nov.83	15 Days
	a. Preparation of the training programme, selection of the lecturers and commissioning the work.	Casablanca (IMEC)	1 April 83	1 Month
	b. Inviting participants from the member countries.	Casablanca	1 May 83	2 Weeks
	c. Preparing teaching aids and didactic programme of the course.	Casablanca (IMEC)	1 May 83	3 Months
	d. Carrying out the course	Casablanca (IMEC)	1 Nov.83	15 Days
	e. Preparing report and evaluation of the course	Casablanca (IMEC)	16 Nov.83	2 Weeks
3.	<u>Residential course for the trainers</u>	Various	1 Febr.84	10 Days
	a. Selection of responsible organization and working out the programme with the assistance of the UNIDO Consultant.	Casablanca/ Various	1 Sept.83	1 Month
	b. Selection of the lecturers and commissioning the work.	Casablanca/ Various	1 Oct.83	1 Month
	c. Selection of the participants in consultation with universities and sending invitations.	Various	1 Oct.83	2 Months
	d. Preparing didactic programme and audio-visual aids	Various	1 Nov.83	3 Months
	e. Carrying out the course	Various	1 Febr.84	10 Days
	f. Preparing report and evaluation of the course.	Various	11 Febr.84	2 Weeks
4.	<u>Seminar for the decision makers and managers from administration and industry, on packaging management and policies</u>	Baghdad	1 April 84	5 Days
	a. Selection of responsible organization and working out the programme with the assistance of the UNIDO Consultant.	Casablanca/ Baghdad	1 Oct.83	1 Month
	b. Consulting the programme with AIDO	Baghdad	1 Nov.83	2 Weeks

4.	c. Selection of the lecturers and commissioning the work	Casablanca/IMEC/Various	Nov. 1983	1 Month
	d. Selection of the participants in consultation with AIDO and Arab Industry Federations and sending invitations.	Various	1 Dec.85	1 Month
	e. Preparing didactic programme of the seminar and audio-visual aids.	Various/Casablanca IMEC	1 Dec.85	2 Months
	f. Carrying out the seminar	Various	1 April 84	5 days
	g. Preparing report and evaluation of the seminar.	Various	6 April 84	2 Weeks
5.	<u>In-plant training course on processing and dissemination of information on packaging for the member of the regional network</u>	Casablanca (IMEC)	1 May 1984	10 Days
	a. Preparation of the training programme in consultation with the Arab League and AIDO Doc. + Inf. Departments and the UNIDO consultant.	Casablanca/IMEC/ Various	1 Nov.1983	1 Month
	b. Selection of the lecturers and commissioning the work.	Casablanca	1 Dec.83	1 Month
	c. Invitation of the participants	Casablanca	1 Dec.83	2 Weeks
	d. Preparing didactic programme and necessary teaching aids.	Casablanca IMEC	1 Jan.83	3 Months
	e. Carrying out the course	Casablanca IMEC	1 May 83	10 Days
	f. Preparing the report and evaluation of the course	Casablanca IMEC	12 May 83	2 Weeks
5.	<u>Seminar on standardization and Quality Control in the field of packaging</u>	Amman (ASMO)	1 June 84	5 Days
	a. Working out the programme with the assistance of the UNIDO Consultant.	Amman/ Casablanca	1 Dec.83	1 Month
	b. Selection of lecturers and commissioning the work	Amman/ Casablanca	1 Jan.84	1 Month

6.	c. Selection and invitation of the participants.	Amman	1 January 84	1 Month
	d. Preparing didactic programme and teaching aids	Amman	1 February 84	3 Months
	e. Carrying out the seminar	Amman	1 June 1984	5 days
	f. Preparing report and evaluation of the seminar.	Amman	6 June 1984	2 Week.
7.	<u>Regional seminar for marketing directors of packaging users' Companies on the foreign market requirements</u>	Various	1 Nov.1984	5 days
	a. Selection of the responsible organization and working out the programme with the assistance of the ITC Expert.	Casablanca/ IMEC Various	1 April 1984	1 Month
	b. Selection of the lecturers and commissioning the work	Various Casablanca	1 May 1984	1 Month
	c. Selection and invitation of the participants.	Various	1 May 1984	1 Month
	d. Preparing didactic programme and teaching aids	Various	1 June 1984	3 Months
	e. Carrying out the seminar	Various	1 Nov.1984	5 Days
	f. Preparing the report and evaluation of the seminar	Various	6 Nov.1984	2 weeks
8.	<u>Organization of the 5th Conference of the National Arab Committees for Packaging.</u>	Various	28 March 1983	3 Days
	a. Preparing the programme in co-operation with AIDC and UNIDO.	Casablanca Various	1 January 83	1 Month
	b. Selection of the reporters and commissioning the work	Various Casablanca/ Vienna	1 January 83	1 Month
	c. Invitation of the participants		15 January 83	2 Weeks
	d. Preparation of the documents for the conference.	Various/ Casablanca/ Vienna	1 February 83	1 Month
	e. Carrying out the Conference.	Various	28 March 83	3 days
	f. Preparing reports and recommendations.	Baghdad/ Casablanca	31 March 83	2 weeks

9.	Realization of the two documentary films on : i) Experimental shipment of selected packed commodities ; ii) selected food packaging system. a. Preparing concept and draft scenarios of the films, the first one in co-ordination with the Project activity n.29 b. Selection of the subcontractor and preparation of the contract c. Realization of the films.	Casablanca (IMEC) Casablanca (IMEC) Casablanca (IMEC) Various	1 Sept.84 1 June 84 1 July 84 1 Sept.84	6 Months 2 Months 1 Month 6 Months
10.	<u>Study tour for packaging documentation and information specialist recruited from the regional Doc+ Infor. network</u> a. Preparation of the study tour programme in co-ordination with the Project activity N.15.3 and confirmation of the host countries. b. Selection of the participants and obtaining their official nominations c. Establishing detailed itinerary and persons responsible for the study tour. d. Making travel and accommodation arrangements. e. Carrying out of the study tour. f. Preparing the report and evaluation of the study tour.	Various Casablanca (IMEC) Vienna (UNIDO) Casablanca Casablanca Vienna Various Casablanca Vienna.	12 May 84 1 Jan.84 1 Jan.84 1 Febru.84 1 Febru.84 12 May 84 1 June 84	2 Weeks 1 Month 2 Months 2 Weeks 1 Month 2 Weeks 2 Weeks
11.	<u>Consultants</u> a. UNIDO Consultants attached to the training programmes, as listed in the Annex 5 (from point 4 to point 11) b. 2 Consultants (UNIDO and AIDO) - audio-visual aids and training kits attached to the Activity N.21.	Various Casablanca (IMEC)	March 83 1 Jan.85	June 1986 6 Months
12.	<u>UNIDO Fellowships on training methods, facilities and equipment</u>	Various	1 March 84	5 Months

S.N.	DESCRIPTION OF PROJECT ACTIVITY	LOCATION	STARTING DATE	PROPOSED DURATION (Target Date)
III.	<u>Technical Assistance</u>	Casablanca (IMEC)	1 Jan. 1984	Continuous
1.	<u>Packaging Design Services</u>			
	a. Elaborating expanded terms of reference for the IMEC/ARPAC expanded design services.	"	1 Jan. 1984	2 Months
	b. Completing the equipment and staffing of the design Unit ;	"	1 Jan. 1984	6 Months
	c. Granting the status of the Packaging Design Centre to the IMEC 's Design Unit.	"		1 June 1984
	d. Promoting the design services of the IMEC/ARPAC throughout the region ;	Various	1 Jan. 1984	Continuous
	e. Collecting the requests and working out the work programme for the PDC, for the years 1984-85	Casablanca (IMEC)	1 March 1984	4 Months
	f. Designing prototypes of the standardized transport packaging.	"	1 Oct. 1984	Continuous
2.	<u>Determination of technical requirements for packaging materials, containers and systems, as a basis for quality unification and evaluation.</u>	Various	1 Jan. 1984	Continuous
	a. Completion of furnishing the laboratory with the additional equipment.	Casablanca	1 Jan. 1984	6 Months
	b. Working out testing methodology and documentation.	Casablanca (IMEC)	1 Jan. 1984	3 Months
	c. Selection of packaging materials and containers for which technical requirements should be determined on a priority basis.	Casablanca	1 Jan. 1984	3 Months
	d. Establishing inter-departmental co-ordination of work at IMEC regarding testing and formulation of technical requirements.	Casablanca	1 March 1984	1 Month
	e. Selecting of testing laboratories in other Arab Countries to co-operate with IMEC/ARPAC in determining technical requirements.	Casablanca (IMEC)	1 Febr. 1984	8 Months
	f. Starting the activity based on the established priorities in co-operation with ASMO.	Various	1 Sept. 1984	Continuous

3.	<u>Adaptation of modern packaging technologies to the local conditions and needs.</u>	Various	1 March 1984	Contin.
	a. Working out concept and principles of choice.	Casablanca (IMEC) Baghdad (AIDO) Vienna (UNIDO)	1 March 1984	5 months
	b. Determining specific local conditions and needs to which modern technologies should be adopted	Casablanca (IMEC) Baghdad (AIDO)	1 July 1984	4 months
	c. Establishing priorities	Casablanca (IMEC) Baghdad (AIDO)	1 Octob.1984	2 Months
4.	<u>Participation in the work-up of the regional quality specifications for packaging materials and containers.</u>	Various	1 Janu.1983.	Continuous
	a. Establishing close co-operation with and division of work between ASMO and IMEC/ ARPAC in determining quality specifications.	Casablanca Amman	1 Janu.1983	4 Months
	b. Studying quality requirements of the export markets.	Casablanca (IMEC)	1 Janu.1983	Continuous
	c. Assessing the needs of the exporters in the Arab Countries regarding technical specifications and setting up priorities.	Casablanca (IMEC)	1 April 1983	4 Months
	d. Preparing the work programme	Amman /Casablanca	1Sept.83	3 Months
	e. Working out testing procedures , system of evaluation and control and necessary documentation; (In co-ordination with p.é.b.)	Casablanca/ Amman	1 Janu.1984	3 Months
	f. Authorization of selected laboratories to carry out independent tests.	Various	1 Nov.1984	Continuous
	g. Starting the activity.	Amman/ Casablanca	1 Nov.1984	Continuous

5.	<u>Commencement of consultancy service in packaging to the industries and trade in the countries of the region.</u>	Casablanca (IMEC)	1 Janu.1983	Continuous
	a. Establishing consultancy service at IMEC/ARPAC, based on the inter-departmental co-operation.	"	1 Janu.1983	3 Months
	b. Working out the system of identifying and processing the requests.	"	1 March 1983	2 Months
	c. Preparing promotional documentation and advertising and processing the requests.	"	1 March 1983	2 Months
	d. Assessment of the corresponding experts and consultancy units in other Arab Countries.	"	1 April 1983	4 Months
	e. Sending out the questionnaires to identify the consultancy subjects.	Casablanca IMEC	1 May 1983	2 Months
	f. Starting the activity.	Casablanca IMEC	1 January 83	Continuous
6.	<u>Working out a programme for and assisting in the establishment of packaging testing units in the Arab Countries.</u>	Casablanca	1 Janu.1983	Contin.
	a. Assessing major packaging manufacturers and users in the Arab Countries requiring testing units ;	Casablanca (IMEC)	1 Janu.1983	3 Months
	b. Evaluating their needs and formulating programme of assistance, including equipment, training of manpower and testing methods.	"	1 May 1983	3 Months
	c. Starting assistance programme	"	1 Sept.33	Continuous
IV.	<u>APPLIED RESEARCH</u>			
1.	<u>Inception of research works in the subjects described in the Activity N.28 from c to f.</u>	"	1 Janu.84	31 Dec.86
	Note 1/ Since the methodology of the implementation of the above-mentioned research tasks is similar, it could follow the following common pattern :			
	a. Preparatory work, consisting of collection and analysis of available information sources	Casablanca	0 month	1 Month

	b. Working out research programme including methodology, aims, targets, inputs and timing.	Casablanca	2 nd month	2 Months
	c. Completion of necessary testing equipment.	"	0 Month	2 Months
	d. Carry out research work.	"	3 rd Month	Target Date
	<p><u>Note 2/</u> In implementing the work the relevant techno-economic studies (activities 40 to 51) should be taken into account.</p>			
	<p><u>Note 3/</u> Detailed programming of research works requires assistance of the UNIDO Consultants listed in Annex N.5 (positions from 17 to 22).</p>			
2.	Fellowships listed in Annex N.6 (positions from 7 to 10).	Various	1983	
V.	<u>STANDARDIZATION AND QUALITY CONTROL</u>			
1.	Completion and up-dating the catalogue of national and international standards as well as laws and regulations concerning packaging (Self-explanatory).	Casablanca	1 Sept.82	12 Month
2.	<u>Carrying out comparative analysis of packaging standards and regulations in the Arab Countries and elsewhere, as the basis for the regional packaging standardization</u>	Casablanca (IMEC) in co-operation with ASMO.	1 Sept.83	12 Month
	a. Identification of information sources and preparing methodology of work.	Casablanca (IMEC)	1 Sept.83	1 Month
	b. Selection of priority standards and regulations essential for expert promotion.	"	1 Oct.83	1 Month
	c. Carrying out the analysis	"	1 Nov.83	9 Months
	d. Formulating conclusions concerning the needs for regional standardization of packaging materials, containers and unification of testing methods.	"	1 August84	1 Month

3.	<u>Development of basic regional standards</u>	Amman (ASMO) and Casablanca (IMEC)	1 June 83	Continuous
	a. Preparing programme of work in the framework of the ASMO Technical Committee for Packaging.	Amman (ASMO in co-operation with IMEC)	1 June 83	2 Months
	b. Establishing terms of co-operation between ASMO and IMEC/ARPAC.	"	1 July 83	1 Month
	c. Execution of the programme with the assistance of the UNIDO experts envisaged in Annex 5. Position 23.	"	1 Sept.83	Continuous (Dec.86)
4.	<u>Unification of the transport packaging dimensions in the region according to the international recommendations.</u>	Casablanca (IMEC) in co-operation with ASMO	1 Janu.84	12 Months
	a. Based on the dimensional system, to be adopted as a result of the work outlined in p.3 above - to elaborate unified dimensions of selected transport packages, crucial for export of foodstuffs.	"	1 Jan.1984	2 Months
	b. Preparing prototypes of the unified containers (in co-ordination with the Activity N.22) and carrying out necessary tests.	"	1 March 84	6 Months
	c. Preparing regional standard for unified dimensions for transport packaging.	Casablanca / Amman	1 August 84	4 Months
5.	<u>Carrying out a study on the present status and needs for the improvement of quality control in packaging industry in Arab Countries.</u> (Self-explanatory).	Casablanca (IMEC)	1 March 84	12 Months
6.	<u>Preparation of principles and work plan for the introduction of quality certification for selected export packages</u>	Casablanca	1 Sept.84	15 Months
	a. Selection of export packages for which certification shall be introduced.	"	1 Sept.84	2 Months
	b. Elaboration of principles and methodology of quality certification to be continued in 1982 .	"	1 Dec. 84	2 Months

7.	<u>Perusal and analysis of the developments in the international packaging laws and regulations and their impact on the exports.</u> (Self-explanatory).	Casablanca (IMEC)	1 Sept.83	Continuous
8.	UNIDO Consultants envisaged in Annex N.5, positions 23, 24 and 25.	Casablanca/ Amman	1983	1985
9.	Fellowships outlined in Annex N.6 positions 12 to 16.			
VI.	<u>TECHNO-ECONOMIC AND MARKETING STUDIES</u>			
	NOTE 1/ The following studies are destined for implementation in the years 1983 - 84 :			
1.	Sectoral studies on : - Glass packaging - Metal packaging - Wooden and ligno-cellulosic Packaging - Textile packaging	Various	1 Sept.85 1 Sept.83 1 Jan.84 1 Jan.84	3 Months 3 Months 2 Months 2 Months
2.	<u>Quantitative and qualitative assessment of the consumption of packaging materials and containers in the Arab Countries in the 5 years period 1983 - 89</u>	"	1 March 84	3 Months
3.	Survey on the tariff and tax policies of the Governments of the Arab States in the field of packaging.	"	1 Jan. 84	4 Months
4.	Study on economizing energy and material consumption in the packaging industry.	"	1 July 83	3 Months
5.	Study on re-usable versus one-way packaging in Arab Countries.	"	1 Oct.83	3 Months
6.	Assessment and analysis of the packaging requirements imposed by the Arab main export markets.	"	1 June 84	12 Months

7.	Survey of the needs and functions of a packaging pilot plant in the framework of the ARPAC.	Various	1 Oct.84	5 Months
8.	Assessment and analysis of the packaging of commodities imported by the Arab Countries from the viewpoint of preventing damages and losses.	Various	1 Sept.84	6 Months

NOTE 2/

It is anticipated that the studies would be carried out principally through subcontracting and their implementation could be based on the following common pattern :

a.	Identification of the sub-contractor (consultant)		0 Month	1 Month
b.	Defining the scope and objectives of the study and preparing the detailed synopsis, work plan and anticipated effects of the study.		0 Month	2 Months
c.	Carrying out the study		3 rd month	2 to 12 months
d.	Evaluation of the results			2 Weeks
e.	Control of the proper and complete utilization of the study by the end-users.			6 Months

NOTE 3/

Implementation of the studies shall be strictly co-ordinated with other connected project activities.

CONTRIBUTION IN KIND OF THE GOVERNMENT
OF MOROCCO TO THE PROJECT RAB/80/013
" ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE "

1. Building and equipment	US \$	2.650.000
2. 20 % of personnel salaries (US \$ 387.100 : 5 x 4 years)	US \$	309.680
3. 20 % of general services cost (US \$ 161.900 : 5 x 4 years)	US \$	129.520

TOTAL : US \$ 3.089.200
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to the Project Document

RAB/80/013

PROPOSALS FOR THE UNDP FINANCED ACTIVITIES TO BE
CARRIED OUT PRIOR TO PROJECT APPROVAL

S.N.	ACTIVITY		UNDP INPUT in \$ US	1983	
	Title	Number		Starting date	Duration
1.	Expansion of the existing thesaurus	3	14.800	January 83	12 Months
2.	Publication of the regional packaging News Bulletin.	5	7.400		
3.	Fifth NACP Confe- rence		44.800	March 83	1 Week
4.	<u>Fellowships</u>	17			
4 a	Organization and management of a packaging documen- tation and informa- tion centre.		7.500	February 83	3 months
4 b	Standardization in the field of packa- ging and management.		2.500	April 1983	1 month
4 c	International laws and regulations		5.000	May 1983	2 months
5	<u>Studies</u>				
5 a	Gloss packaging	40c	22.200	Sept.83	3 Months
5 b	Metal packaging	40d	22.200	Sept.83	3 Months
5 c	Economizing energy and materials con- sumption in the packaging industry	44	22.200	July 83	3 Months

S.N.	ACTIVITY		UNDP INPUT in \$ US	1983	
	Title	Number		Starting Date	Duration
6	<u>Purchase of equipment</u>				
6 a	Books and Documents		5.000	January 1983	
6 b	Offset printing machine with plate making unit		4.000	May 1983	
6 c	Audio-visual course on packaging		5.000	April 1983	
	<u>TOTAL</u>	US \$	162.600		

S U M M A R Y

OF MEETINGS AND DISCUSSIONS HELD DURING THE VISITS TO SELECTED ARAB COUNTRIES, CARRIED-OUT BY MR.A.BENNOUNA, DIRECTOR GENERAL, IMEC AND MR.A.SOLTAN, PACKAGING EXPERT, UNIDO, FROM 16 TO 29 MAY 1982, IN THE FRAMEWORK OF THE PROJECT N.RAB/80/013 "ESTABLISHMENT OF THE ARAB REGIONAL PACKAGING CENTRE" - PREPARATORY PHASE.

A. - JORDAN

1. / MINISTRY OF INDUSTRY AND TRADE

a. Meeting with Director General for Industry ,
Dr. A. KARMOUL.

- Main contact point in Jordan for the Project - Ministry of Industry and Trade ;
- Priorities -
 - Food packaging ;
 - Expert promotion through packaging ;
 - Quality control on a factory level ;
 - Factory clinics (trouble-shooting) ;
 - Evaluation of packaging systems ;
 - Packaging printing and design ;
 - Recycling and re-use of packaging ;
 - Co-ordination of new investments in packaging (e.g. glass) on a regional level.

- Ready to take part in the Study Tour and a Two-Phase seminar in Casablanca to evaluate the Draft Project Document.

b. Meeting with Director of the Standardization and Quality Control Department , Dr. S. E. TAHA.

This Department may serve as a contact point for standardization and quality control in the field of packaging,

- Ready to organize a seminar on Quality Control in packaging in Jordan ;
- Regional activities in standardization should be co-ordinated with the ASMO ;
- Ready to co-operate and participate in the activities but have a very small staff ;
- Chamber of Commerce should assist financially.

c. Meeting with the Minister of Industry , Mr.W. ASFOUR.

- Full support to the project ;
- Institutional solution regarding the Arab Regional Packaging Centre (A.R.P.C.) could be delayed due to the general recommendation of the Arab League to postpone the creation of new regional bodies;
- Nevertheless activities of the project should be followed up ;
- IMEC should prove to be fully prepared to carry out regional activities ;
- It is necessary to convince the Governments and AIDO that the Project will bring concrete results.

2. / FEDERATION OF ARAB CHAMBERS OF COMMERCE, MR. A. Y. HUSSEINI, SEC. GEN.

- Packaging should be one of the components of the work programme for the Agriculture Development Company, newly established jointly by the Arab League and Federation of Chambers of Commerce. Follow-up Committee is meeting soon in Kuwait to discuss the by-laws and work programme for the Company.
- Beginning of May 1982 there was a conference in Abu Dhabi on the export promotion. One of the points in the agenda was packaging.
- Jordan received assistance from the EEC in marketing agricultural products and expertise + facilities will be provided, i.a. in the field of packaging.

3. / MEETING WITH ASMO, MR. Z. SAWAF, SEC. GEN.

- Technical Committee for Packaging was established.
Members : Iraq, Morocco (Secretariat), Saudi Arabia, Lybia and Sudan.
Observers : Lebanon, Oman, Syria and Tunisia.

The members are national standards organizations.

- Packaging terminology is the first subject of the TC Work,
- Ready to organize and finance one seminar (one week, 15-20 participants), once a year in packaging standardizations matters,
- ASMO and UNIDO are prepared to finance participation of a TC member in selected ISO/TC meetings ;

- Members of the TC for Packaging could act as contact points in the regional activities ;
- Are ready to evaluate draft project document and take part in the september seminar in Casablanca.

4. / VISIT TO THE JORDAN PAPER AND CARDBOARD FACTORIES CO. LTD., DR. ENG. A. HABAYBEH, DIRECTOR-GENERAL

- Packaging testing laboratory is urgently needed in the factory . For this purpose testing equipment has been selected, and procured, premises are being adapted, and a laboratory manager chosen. He should be promptly trained. IMEC is ready to train him in testing methods and equipment as well as in managing laboratory upon the appropriate request.
- Similar kind of training activities, aiming at preparation of cadres for packaging testing units in other Arab Countries should be taken into account when the project activities are formulated.

5. / MEETING WITH THE AGRICULTURAL MARKETING ORGANIZATIONS, MR. ABDELKADER MOSIN, GENERAL MANAGER,

- Inadequate packaging of fruits and vegetables results in Jordan losing her neighbouring export markets.
- Lack of testing facilities does not enable packaging manufacturers and users to observe and control technical specifications.

Priorities :

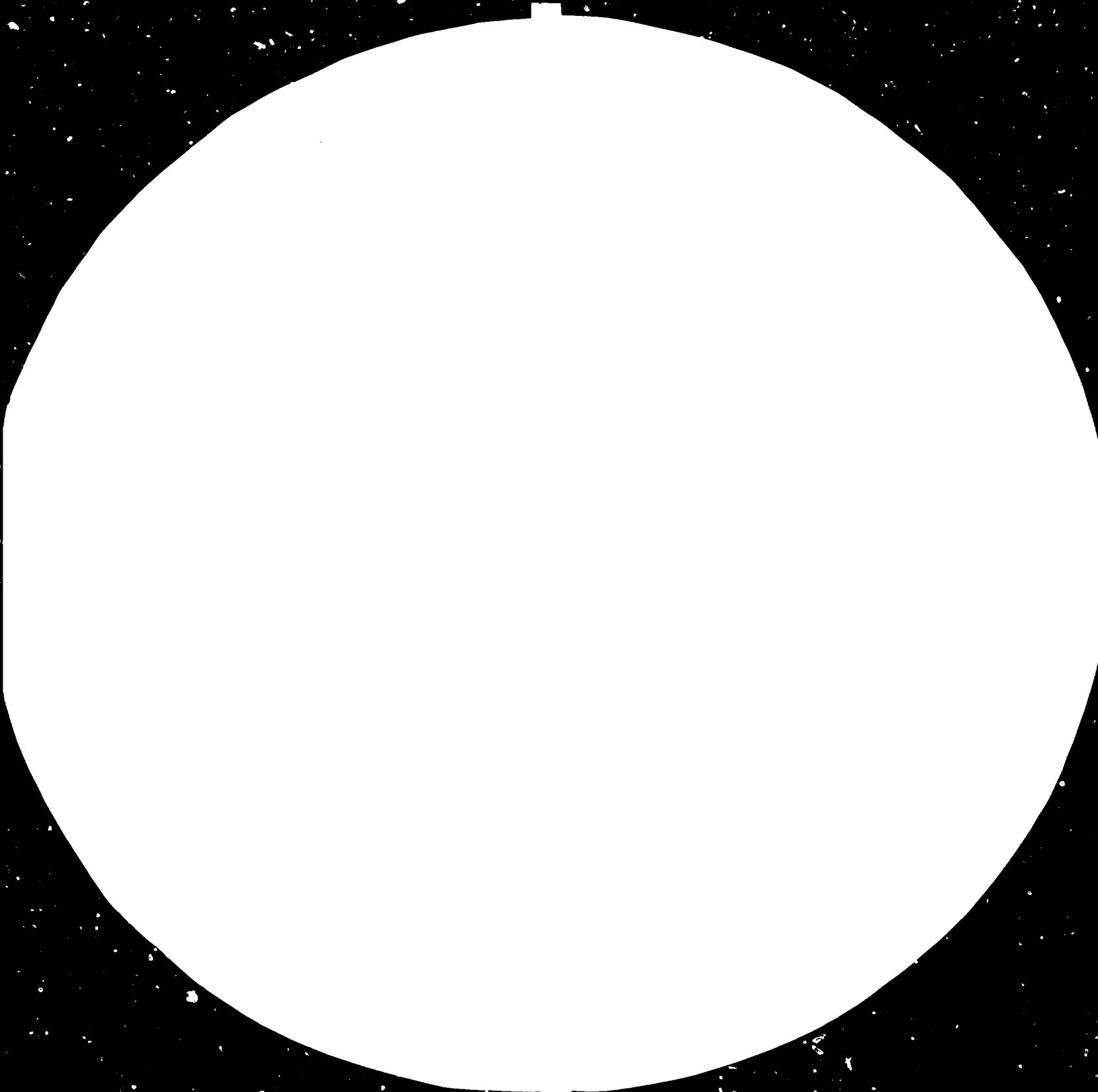
- Standardization of transport packaging for agricultural products ;
- Improvement of construction and display values of packaging ;
- Investigations in the field of transport hazards in view of reducing product losses.

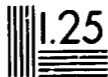
B. - K U W A I T

1. / MEETING WITH MR. ABDULLA AL HAMAD, UNDER-SECRETARY IN THE MINISTRY OF COMMERCE AND INDUSTRY.

- Full support to the project has been expressed ;
- The Ministry will participate in the AIDO Packaging activities.
- General research laboratories are being established in Kuwait and packaging testing could be a part of it
- A representative of the Ministry to participate at the two-phase seminar in Casablanca will be selected upon written request.

84.03.26
AD.85.03





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8



MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010A
APPROXIMATE TEST CHART NUMBER

2. / MEETING WITH THE ARAB FUND FOR ECONOMIC AND SOCIAL DEVELOPMENT, MR. I.T. EL ZABRI, DIRECTOR OF RESEARCH AND STUDIES AND MR. E. ALKHATIB, ECONOMIST.

- The fund is mostly interested in pre-feasibility and feasibility studies, which should be supported by at least 2 countries ;
- A study on development of paper industries in the Arab Countries is just starting and will be executed by the Federation of Arab Paper and Carton Industries. One of the items is sacking paper . The study could be supplemented by other priority subjects concerning paper packaging.
- The pre-feasibility studies on glass packaging industry and plastics processing were contemplated as priority matters. The Fund is ready to consider them provided necessary procedures are observed.
- A representative of the Fund will be appointed for the two-phase seminar in Casablanca, upon a written request.

C. / SAUDI - ARABIA

1. MEETING WITH MR. YOUSSEF AL HAMAL, DEPUTY MINISTER FOR ELECTRICITY IN THE MINISTRY OF INDUSTRY AND ELECTRICITY.

- Appreciation of the importance of packaging as well as readiness to support the project was expressed.
- A representative of the Ministry for the two-phase seminar in Casablanca will be nominated upon written request.

2. VISIT TO THE SAUDI-ARABIAN STANDARDS ORGANIZATION
MEETING WITH DR. KHALED Y. ALKHALAF, DIRECTOR GENERAL
AND HIS TECHNICAL STAFF.

- National standards introduced by SASO are compulsory ;
- There is a policy of adapting ISO Standards (packaging standards included) as they are, provided they are not harmful to the Saudi Arabian environment;
- SASO supports the project concerning Arab Regional Packaging Centre and are willing to contribute in the training programme ;
- The existing testing laboratories of SASO possess i.a. very sophisticated instruments like atomic absorption spectro-photometer (to determine i.a. traces of heavy metals in food), gas-chromatographer (to assess the migration rate of plastic

monomers) and weatherometer for accelerated ageing of materials, which could be used for compatibility tests of packaging materials ;

- Expansion of SASO laboratories ranging ca. US \$ 40 million is planned for the near future and packaging testing component could be envisaged. For that purpose services of a short-term packaging consultant are required.
- SASO is also prepared to invite a consultant for one year to advise on different matters concerning packaging production and application.
- SASO is willing to train at IMEC one of their officers who will be in charge of packaging.
- SASO General Director expressed the wish to participate at the two-phase seminar in Casablanca, provided the timing of it would not coincide with the ISO meeting planned for 8 - 17.9.82 in Toronto, CANADA.

D. I R A Q

1. / MEETING WITH ARAB INDUSTRIAL DEVELOPMENT ORGANIZATION AIDO, MR. A. AL AZZABI, DIRECTOR-GENERAL AND HIS SENIOR STAFF.

- The financial support of AIDO for the project could be declared only after the detailed activities and costs involved are formulated within the mid-term programme.
- Director-General wishes to participate in the joint AIDO/UNDP/IMEC meeting in Rabat (28 - 30 June 1982) devoted to the final formulation of the Draft Project Document, where detailed discussions on the project activities as well as forms and scale of participation in their implementation would take place.
- Emphasis should be placed on the assistance to the less developed group of Arab Countries, i.e. Djibouti, Mauritania, Sudan and Yemen.
- Preferably the budget for the mid-term programme should be made for the first two years, which would facilitate AIDO to consider its contribution ;
- It was emphasised on the part of the visitors that AIDO direct participation and contribution to the project is the pre-condition of its implementation.

2. / MEETING WITH MR. H.A. MEKKAWI, HEAD OF DOCUMENTATION AND INFORMATION DEPARTMENT, AIDQ.

- All documentation and information in the Arab region should be subordinated to the principle structure, the centre of which is documentation and information department of the Arab League in Tunis and the sub-networks consisting of -

- . national focal points and

- . specialized focal points grouped by sectors (i.e. fertilizers, packaging, etc).

- A regional meeting of the Documentation and Information unit's representatives is necessary to establish closer links and principles of co-operation.

3. / MEETING WITH THE STATE ORGANIZATION FOR STANDARDIZATION AND QUALITY CONTROL, MR. M. HANNOUCH, GENERAL DIRECTOR.

- Full support to the ARPC project was expressed,
- Regional co-operation in the field of packaging standardization is essential for up-grading the quality of packaging materials and containers.

4. / MEETING WITH MR. AHNAF M. KUMAIT, PRESIDENT OF THE
STATE ORGANIZATION FOR INDUSTRIAL DEVELOPMENT,
MINISTRY OF INDUSTRY AND MINERALS.

- The recent meeting of the National Committee for Packaging , chaired by the Minister of Industry, adopted resolution to establish Iraqi National Packaging Centre, which clearly indicates importance attached by the Authorities to the development of packaging industry. The SOID was requested to prepare the project. The members of the National Committee for Packaging are :

Ministry of Industry and Minerals,
Ministry of Oil,
Ministry of Agriculture,
Ministry of Health,
Ministry of Commerce,
State Organization for Industrial Development,
State Organization for Standardization.

The person in charge of the NCP is Dr. FARASCH HABA,
State Organization for Industrial Development.

- Decision of the Arab League to postpone establishment of any new regional bodies should be verified in view of the fact that the physical basis for setting up the ARPC is existing (IMEC) and only small fraction of necessary funds is needed. The President also emphasised that AIDO should be authorized to take final decision in this matter.
- The President is prepared to accept the invitation to take part in the two-phase seminar, while Dr. F. HABA might participate in the study tour and the seminar.

5. / MEETING WITH DR. FARASH HABA, STATE ORGANIZATION
FOR INDUSTRIAL DEVELOPMENT AND PART-TIME CONSUL-
TANT OF AIDO

- Creation of the ARPC was already decided by the Administrative Council of AIDO in October 1981, but now decisions on its establishment should be taken. A memorandum should be prepared and submitted to AIDO to this effect and related draft recommendation of the Arab League suggested.
- Priority regarding the project activities should be given to the :
 - . basic study on the Arab packaging industry and recommendations on its integrated development.
 - . The study should include such elements as : principles of package production and use, value added, labour, availability of local resources, quality of production, recycling and re-use of packaging ;
- The forthcoming 5 th Conference of the Arab National Committees for Packaging could take place in Baghdad, preferably in April 1983, supplemented with the reports on :
 - . Packaging for food products and
 - . Paper and carton packaging.

6. / MEETING WITH DR. FALAH SAID JARR , GENERAL SECRETARY
OF THE ARAB FEDERATION OF FOOD INDUSTRIES.

- First Arab Conference on Food Canning Industries
will be held in Rabat from 26 to 30 October 1982
and the participation of IMEC is requested,

- Two reports of UNIDO to the above conference are
also requested :

. New trends in technology of canning, and

. UNIDO's role in promoting canning industries
in Developing Countries.

This concludes the summary of the meetings and discus-
sions held during the tour of selected Arab Countries.

Enclosure : ITINERARY

I T I N E R A R Y

of the Tour of selected Arab Countries carried out in the framework of the Project N° DP / RAB/ 80 / 013.

Date	ACTIVITY
16 MAY 1982	Arrival in Amman
17 MAY 1982	Meeting Mr. A. M. Naghaway, Programing Officer , UNDP Meeting Mr. A. J. Karmoul, Director of Industry in the Ministry of Industry and Trade, Meeting Mr. S. Y. Taha, Director, Directorate of Standards and Measures, Ministry of Industry and Trade.
18 MAY 1982	Meeting with Mr. W. Asfour, Minister of Industry and Trade and Mr. T. Batharzeh, Assistant Under-Secretary. Meeting Mr. Ali Dajani, President of Jordan Chamber of Commerce and Chairman of the National Committee for Packaging. Meeting Mr. Y.Y. Hussein, Secretary-General of the Federation of Jordanian Chambers of Commerce . Meeting Mr. Z. Sawaf, Secretary-General of Arab Standardization and Metrology Organisation, ASMO. Meeting Mr. A. Habaybels, General Manager, Jordan Paper and Cardboard Factories Co. Ltd. Meeting Mr. Abdelkader Mosis, General Manager of Jordan Agriculture Marketing Organization. Meeting with Mr. G.E. Antipass, Deputy Resident Representative , UNDP in Amman.
19 MAY 1982	Arrival in Kuwait.

Date	ACTIVITY
22 MAY 1982	<p>Meeting with Mr. Ali H. Al Zataai, Programme Assistant, UNDP Office, Kuwait.</p> <p>Meeting with Mr. Abdulla AL Hamal, Under-Secretary, Ministry of Commerce and Industry,</p> <p>Meeting with Mr. I.T.El Zabti, Director of Research and Studies, Arab Fund for Economic and Social Development, and Mr. F. Al Khatib, economist.</p> <p>Arrival in Saudi Arabia</p>
23 May 1982	<p>Meeting with Mr. Z. Amin, Assistant Resident Representative, UNDP Office in Riad.</p> <p>Meeting with Mr. S. M. Ismail, Manager, Industrial Department, Chamber of Commerce and Industry,</p>
24 MAY 1982	<p>Meeting with Mr. Youssef Al Hamal, Under-Secretary for Electricity, Ministry of Industry and Electricity,</p> <p>Meeting with Mr. Khaled V. Alkhalaaf, Director General of the Saudi Arabian Standards Organization SASO.</p>
25 MAY 1982	<p>Arrival in Baghdad.</p>
26 MAY 1982	<p>Meeting with Mr. K. Padmanabhan, Assistant Resident Representative, UNDP, Baghdad.</p> <p>Meeting with Mr. Ayyad Al Azzabi, Director General, AIDO.</p> <p>Meeting with Mr. Mehdi Hammouch, Director General of the Iraqi Organisation for Standardization and Quality Control.</p>
27 MAY 1982	<p>Meeting with Mr. Anaf M. Kumait, President, State Organization for Industrial Development.</p> <p>Meeting with Mr. F. Haba, In charge of the National Committee for Packaging.</p> <p>Meeting With Mr. A. H.A. Mekhawi, Head, Documentation and Information Department, AIDO.</p>
28 MAY 1982	<p>Meeting with Mr. F. Said Jabr, General Secretary of the Arab Federation of Food Industries.</p>
29 MAY 1982.	<p>Arrival in Casablanca.</p>

S U M M A R Y

of the meetings and discussions held during the visit to Tunisia, carried out by Mr. A. BENNOUNA, Director General, IMEC and Mr. A. SOLTAN, Packaging Consultant, UNIDO, from 14 to 17 July 1982, in the framework of the Project DP/RAB/80/013 "Establishment of the Arab Regional Packaging Centre - Preparatory Phase".

1. Visit to the UNDP Office in Tunis

Meeting with Mr. SALAHIE, Assistant Resident Representative and Mr. N. VAN DE WALLE, Programming Officer.

Purpose of the visit as well as Preparatory Phase activities were reviewed. Programme of the meetings with the Tunisian Authorities and Organizations was rectified.

Valuable briefing was given by the UNDP representatives with regard to the role of Tunisia in the development of regional co-operation in general as well as support to the Project.

2. Visit to the Ministry of National Economy.

Meeting with Mr. Habib Laroussi, Director of Industrial Enterprises and Programming and Mr. H. Toumi, Deputy Director for Investments and Industrial Co-operation..

- Strong support is given by the Ministry to the Project and this had been substantiated by approving the recommendations of the AIDO Governing Council adopted at the meeting in Baghdad, September 1981.

- Priorities in the activities of the Arab Regional Packaging Centre (ARPAC) should be :

- Consulting services ;
- Adaptation of modern technologies to the conditions and needs of the Arab Countries ;
- Sectoral studies in the field of packaging to identify present status and perspectives of the development of this industry.
- Mr. H. Laroussi is ready to accept the invitation to the Two-Phase Seminar, to be held in Casablanca, 30.3.- 3.9. 1982.

3. Visit to the National Centre for Industrial Studies (CNEI)

Meeting with :

Mr. S. Marrakchi, Deputy Director General,
Mr. M. Ayari, Director,
Mr. M. Dallagi, Director P.M.E.,
Mr. B. Mohamed, Chief, Division of Food Industries, in charge
for Standardization.
Mrs. N. Abdeljaoued, Deputy Director of Documentation and
Information Division,
Mr. E. Mabrouk, In charge of Studies, Training, and External
Relations.

- There is a definite need to co-ordinate packaging activities
of Arab Countries on a regional level ;
- Tunisia, being considerably alerted with the packaging pro-
blems, especially for exported products, looks for assistance
in solving them and considers establishment of the national
packaging infrastructure ;
- There are different technical centres being set up recently in
Tunisia, for such branches, like :
 - Construction industries ;
 - Metal industries ;

This opens the way for considerations regarding a packaging focal
point in the country.

- Documentation and Information Division may act as a point of
contact in the planned Documentation + Information regional
packaging network, regarding industrial studies ;
- Sectoral studies in the field of packaging should be given
prominent place in the work programme of the ARPAC.
- packaging Standardization on a regional level should take into
account national conditions and needs. Tunisian Standards Insti-
tute will be established soon and will devote considerable atten-
tion to this subject.

4. Visit to the Export Promotion Centre CEPEX

Meeting with Mr. M. Jaziri, Adviser Administrator, Chief, Division of External Relations.

- Priority should be given to the improvement of packaging for export ;
- Packaging activities in Tunisia have to be institutionalized since much of efforts and actions are lost through lack of co-ordination and programming;
- One of the most urgent problems is standardization of packaging and unification of technical requirements ;
- CEPEX can be a contact point for Documentation + Information regional network, regarding packaging for export ;
- It is advisable to visit African Organization for Export Promotion AOPC in Tanger in order to inform of the Project and attain their support.

5. Visit to the Arab League Headquarters

a. Meeting with Mr. Hassan Abdelrazek , Economic Adviser. Problems concerning legal aspects of the ARPAC establishment were viewed.

In the light of the recent Arab League decision to avoid creating regional Arab Organizations until an appraisal of performance of the existing ones is accomplished - the chances of accepting establishment of ARPAC by the Economic and Social Council of the Arab League are meagre.

Therefore the more realistic approach would be to encourage AfDO to take the formal decision to establish ARPAC as a technical body of regional character, assisting the Arab countries to develop packaging industries.

b. Meeting with Mrs. FARIA ZAHAWI, Director of the Documentation and Information Department of the Arab League.

- The Arab League is developing a regional information processing and dissemination system, including also specialized regional agencies and national information centres. Therefore all new branch information networks should fit into this system and their equipment should be compatible.
- There is a need for special meeting to discuss the principles and practical steps on how to ensure the co-ordination of different Documentation + Information centres and harmonize methods and facilities.

- IMEC will be included in the list of co-operating bodies upon written request.

6. Visit to the National Society of Cellulose and Alfa Paper,
SOCOPAPIERS

Meeting with Mr. Jaziri, Director, representing Arab Federation of Paper and Printing Industries.

The aims and the draft work programme of ARPAC were explained and discussed.

- It was stressed that regional technical specifications for packaging materials should be prepared very cautiously, taking into account quality of local raw materials and level of industry.

- The Federation is ready to accept the invitation to the Two-Phase Seminar in Casablanca.

7. Final visit to the Ministry of National Economy

Meetings with :

- Mr. M. Belaid, Director General for Industry,
- Mr. A. Chabouni, Director, Light Industries,
- Mr. A. Ben Brahim, Deputy Director for Food Industries,
- Mr. J. Mangi, Engineer.

- The results of the visits were summarized.

- Full support to the Project was explicitly re-iterated, and importance of establishing ARPAC emphasized ;

- The need for contribution from Arab Countries to the Project in cash and in kind was considered necessary ;

- Establishment of the ARPAC would certainly help Tunisia in solving their own packaging problems ;

- Project activities were discussed in detail and all of them were considered important for the development of co-operation of Arab Countries in the field of packaging.

Enclosure : Itinerary

ITINERARY

OF THE VISIT TO TUNISIA CARRIED OUT IN
THE FRAMEWORK OF THE PROJECT
DP/RAB/80/013

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DATE	ACTIVITY
Tuesday, 13 July 1982	Arrival in Tunis.
Wednesday, 14 July 1982	<p>Meeting with Mr. Salahie, Assistant Resident Representative, and Mr. Van De Walle, Programming Officer, UNDP;</p> <p>Meeting with Mr. H. Laroussi, Director of Industrial Enterprises and Programming Ministry of National Economy, and Mr. H. Toumi, Deputy Director, Investments and Industrial Co-operation, MNE.</p>
Thursday, 15 July 1982	<p>Meeting with Mr. S. Marrakchi, Deputy Director General, National Centre for Industrial Studies, Mr. M. El Ayari, Director, and Mr. M. Dallagi, Director P.M.E., members of the National Committee for Packaging, Mr. B. Mohamed, Chief of the Division for Food Industries, in charge for the Standardization, and other technical staff.</p> <p>Meeting with Mr. Hassan Abdel Razek, Economic Adviser, the Arab League and Mrs. F. Iahawi, Director, Documentation and Information Department, A.L. ;</p>
Friday, 16 July 1982	<p>Meeting with Mr. N.Jaziri, Director, National Society of Cellulose and Alfa Paper, SOCOPAPIERS, and representative of the Arab Federation of Paper and Printing Industries ;</p> <p>Meeting with Mr. M. Jaziri, Administrative Adviser and Chief, Division of External Relations, Export Promotion Centre, CEPEX ;</p>
Saturday, 17 July 1982	<p>Meeting with Mr. Belaid, Director General, Ministry of National Economy, Mr. A. Chabouni, Director of Food, Textile and other Industries, Mr. A. R. Ben Brahim, Deputy Director of Food Industries and other technical staff.</p> <p>Departure for Casablanca.</p>

MINUTES

OF THE JOINT AIDO - UNDP/UNIDO - IMEC MEETING, HELD IN
CASABLANCA, 23 AND 24 SEPTEMBER 1982.

PRESENT :

MINISTRY OF TRADE AND INDUSTRY OF MOROCCO :

- Mr. O. AMRAOUI, Director for Industry, (Chairman)

AIDO :

- Mr. T. ISMAIL, Director for Planning and Follow-up,
- Mr. B. ABOU SHEIKHA, Head, Finance Section.

UNDP :

- Ms. L. HAMADEH, Regional Projects Officer, N. York,
- Mr. E. DIERCKX DE CASTERLE, Resident Representative
a.i. , Rabat.

UNIDO :

- Mr. J. BELO, Senior Industrial Development Officer,
- Mr. A. SOLTAN, Packaging Consultant.

IMEC :

- Mr. A. BENNCUNA, Director General,
- Mr. M. MAAOUNI, Head, Standardization Department,
- Mr. A. BOUSTTA, Head, Studies Department,
- Mr. A. NADRI, Administrative Officer.
- Mme. W. BENNANI, Training Department.

SUBJECT : TO REVIEW THE SECOND VERSION OF THE DRAFT
PROJECT DOCUMENT FOR THE ESTABLISHMENT OF
THE ARAB REGIONAL PACKAGING CENTRE ARPAC.

SUBMITTED DOCUMENTS :

- 1/ PROJECT DOCUMENT + ATTACHMENTS (in English and Arabic).
- 2/ PREPARATORY ASSISTANCE DOCUMENT RAB/80/013/A/01/37
- 3/ MID-TERM PROGRAMME
- 4/ REPORT OF THE GOVERNING COUNCIL OF AIDO
- 5/ SYNTHESIS OF THE JOINT AIDO - UNDP/UNIDO - IMEC MEETING,
CASABLANCA, JUNE 1982.
- 6/ SUMMARIES OF THE VISITS TO ARAB COUNTRIES.

RESULTS OF THE MEETING :

Mr. O. AMRAOUI opened the meeting, wished fruitful debates and confirmed the intention of the Government of Morocco to place the facilities of IMEC at the disposal of the Arab region.

After thorough discussion on the project concept, programme of implementation and components, the following conclusions and recommendations were agreed upon :

1. - AIDO will submit the draft Project Document to the forthcoming meeting of the Governing Council in its present form.

2. The Project activities which are based on the recommendations outlined in the report of the Fourth Conference of National Arab Packaging Committees (Bejruth 1980) as well as in the Mid-Term Programme approved by the AIDO Governing Council, were agreed upon.
 3. The overall budget for the Project should not exceed US \$ 3.5. million, and the cost sharing shall be defined after the approval of the project by the AIDO Governing Council (October 1982) and UNDP.
 4. Final decision on the creation of the ARPAC should be taken up by the AIDO Governing Council while the implementation of the mid-term programme should proceed in gradual stages including the establishment of the Centre.
 5. AIDO and IMEC will agree formally on the modalities of the project implementation, and will inform UNDP/UNIDO accordingly.
 6. After the approval of the Project by the AIDO Governing Council the final version of the Project Document will be produced according to the guidelines outlined by the UNDP representatives, before its submission to UNDP. For that purpose it was suggested that the assignment of the UNIDO Consultant be extended for two months (from 15 October to 15 December 1982) subject to UNDP Headquarters approval.
 7. It was further recommended that Arab National Packaging Committees/representatives be nominated in all Arab Countries which would serve as formal focal points for the creation of the regional packaging network and a regional committee be formed which will contribute to the planning and follow-up of the programme activities. It will participate in the annual tri-partite project review meetings.
- At this point the meeting was closed.

