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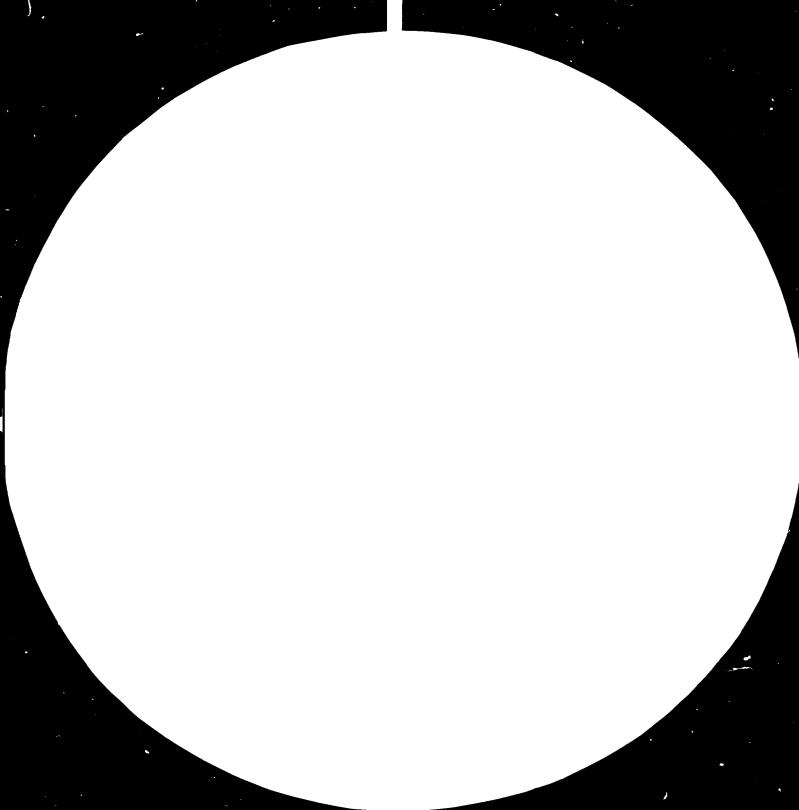
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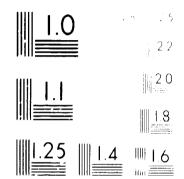
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PROMOTION OF INDUSTRIAL AWARENESS AND INFORMATION DISSEMINATION IN THE FIELD OF CHEMICAL FERTILIZER INDUSTRIES IN ARAB STATES .

DP/RAB/80/010

ARAB COUNTRIES

Terminal report \*

Prepared for the Governments of the Arab Countries by the United Nations Industrial Development Organization executing agency for the United Nations Development Programme

, . .

Based on the work of T.M. Alexander, expert in publication services

United Nations Industrial Development Organization Vienna

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### I. INTRODUCTION

### I.1 <u>Development Objectives</u>

The development objective of the project is to strengthen the capacity of the Arab Federation of Chemical Fertiliser Producers (AFCFP), Kuwait, in their efforts to promote industrial awareness and information dissemination on all aspects of production and application of fertilisers in the Arab States.

Through the P.A. Project, AFCFP Managers shall be acquainted with the latest developments in the field of editorial and publishers techniques applicable to the specific information services rendered by a manufacturers' Association. Furthermore, the project aims at developing an information and publication distribution system based on the outputs of the AFCFP Fertiliser Information Unit which is going to be established in cooperation with the Industrial Development Centre for Arab States (IDCAS) and function as a Data Collection System and Data Bank.

### I.2 <u>Immediate Objectives</u>

The immediate objectives of the project are:

- (i) to improve AFCFP's organisational and technical capabilities relating to publication services;
- (ii) to strengthen AFCFP's coordinating role and position
   vis-a-vis member companies and Governments of the Arab Region;
- (iii) to increase the effectiveness and volume of AFCFP's work rolating to dissemination of information;
- (iv) to suggest important items of specialised equipment;
- (") to assist in publishing Arab versions of selected wellknown and uptodate technical literature on fertilisers;
- (vi) to train cooperators of the system (network) and contributors of data to the system at the company lavel;

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- (vii) to establish the required direct link between data collection and dissemination services of AFCFP and ADID 'Arab Organisation for Industrial Development);
- (viii) to transfer operational experience on publication services in the industrialised countries on a longer term basis.

The ultimate aim of the envisaged follow up project activities is to develop an industrial awareness as well as to raise the level of knowledge on fertiliser materials and fertiliser industries in the Arab States.

### 1.3 <u>Special Considerations</u>

In the coming years, Arab countries have to play a major role in global economic and agricultural development. While in 1975 only approximately 8 per cent of the world's total industrial output originated in these countries, the target set for the year 2000 calls for an increase of their share to atleast 25 per cent.

To reach this goal, the Arab countries have to be provided with technical assistance on all aspects of industrial development, particularly in the fertiliser field, so that lack of experience may not impede the desired rapid industrial growth.

The importance of the objectives of this project to Global Food Problem goes without saying. It is obvious that the impact of a highly efficient Arab Fertiliser Industry on the world fertiliser market and hence on the promotion of fertiliser use to bring about increased food production will go a long way in meeting the aims and objectives of the United Nations.

Furthermore, it may be recalled that the Arab countries presently import about half of their food requirements from outside the region, even though a vast potential for agricultural development exists in these countries. If the existing deficit in food production in relation to food requirements would persist, the Arab region with its growing population would face serious food shortages in the future.

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For example, shortage in supply of cereals in the region would reach a level of 34 million tonnes per year by the year 2000. In the light of rapidly dwindling world food reserves, the impending world food crisis is bound to attain dramatic proportions if agricultural production in the region does not keep pace with the population growth.

The Arab region fulfils the pre-requisites and provides a sound pasis for its effective contribution to increase the world food reserves due to the following advantages:

- (i) It is endowed with extensive hydro-carbon feedstock resources for the production of nitrogenous fertilisers.
- (ii) It has vast deposits of rock phosphate.
- (iii) It has established and is planning expansion of the fertiliser industry based on indigenous mineral resources.
- (iv) It has considerable potential for increasing the area of arable land by bringing under cultivation hundreds of millions of hectares uf arid and semi-arid soils.

In this context, any improvements which will result in increased industrial and agricultural output in consequence of the implementation of this project should be considered as a contribution towards achieving global goals of the United Nations with the ultimate aim of solving the world's nutrition and industrialisation problems.

### I.4 Background and Justification

The Fertiliser Industry of the Arab States is expanding rapidly in consequence of the availability of almost unlimited indigenous sources of raw materials for the manufacture of chemical fertilisers. The Northern African sub-region and the Arab Middle East countries possess vast reserves of phosphate rock, natural gas and crude oil which are essential and basic natural resources for a sound and self-supporting development of this sector of industries. Because of the rapid development in this field over the past decade, most of the fertiliser companies are relatively young with comparatively limited experience and hence need support in all areas of their activities.

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The need for assistance was recognised by the Governments of the Arab States for some years ago and the issues to be considered as of mutual interest among the companies and countries were duly identified. As a result of these considerations and with the support of the Industrial Development Centre for Arab States (IDCAS) and the Council of Arab Economic Unity (CAEU), the Arab Federation of Chemical Fertilizer Producers was established in April 1976.

The membership of the Federation is now spread over 22 countries rich in capital and natural resources. Thus, there is immense scope for establishing a flourishing fertiliser industry. This process can be accelerated if the Federation can create the industrial awareness required and can act as a catalyst and a cementing force among its members. It should also assist them in obtaining the managerial skills for better harnessing the various inputs required for the development of the fertiliser industry.

The basic objective stipulated in Article 4 of the Articles of Association of the Federation covers a wide range of issues relating to promotion of fertiliser production and application. In support of some of these activities, which are being performed by the Federation and its member companies in the broader sense of assistance to the Governments of Arab States, a regional project has been established by UNDP in cooperation with IDCAS, UNIDO, FAO and AOAD. The project entitled "Regional Cooperation Programme for the Development and Promotion of Fertilizer Production and Utilization in Arab Countries" has recently become operational.

One item of the list of activities of the project is to assist AFCFP in the establishment of a Regional Fertilizer Information Unit as a part of the Federation. This unit shall intrinsically be linked as a sectoral unit with the Regional Industrial Information System which is under preparation by IDCAS as a centralised unit covering all sectors of industries in the Arab States.

The Unit of AFCFP shall function as a focal point of information collection concerning the fertiliser industry. The assistance becoming available through the UNIDO/IDCAS project will concentrate on the

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establishment of a data collection system and related activities of input services and cooperation between member companies, Government organisations and AFCFP and IDCAS.

Against this background and in consequence of the activities being undertaken jointly by IDCAS, UNIDO and AFCFP which do not comprise assistance in the field of publication and information dissemination services, AFCFP requested UNDP to provide supplementary support in order to strengthen their existing organisational set up and publications programme.

AFCFP is a regional non-profit organisation classified in UNIDO terms as a non-Governmental organisation or business and industrial institution. As such, AFCFP is qualified to receive direct assistance under the regional programme of UNDP.

In response to the request of AFCFP, UNDP has drawn up a project for preparing a report on 'Promotion of Industrial Awareness and Information Dissemination in the Field of Chemical Fertiliser Industries in Arab States'.

For preparing the report, UNDP needed the assistance of an expert in the field of editorial, publications and information dissemination services. They requested the Fertiliser Association of India, New Delhi, India, to spare the services of one of their experts in the field for about a month who could visit AFCFP office in Kuwait, study the subject and prepare the report. FAI nominated Mr. T.M. Alexander, Manager, Publications in FAI for preparing the report.

Mr. Alexander visited AFCFP office from February 6-28, 1981 and held discussions with officials of AFCFP as per terms of reference of the project.

### I.5 Evaluation

There is immense scope for expanding the Fertiliser Industry and building up a strong Federation in the Arab countries. In order to service its members effectively, the Federation has to be a well-knot organisation with qualified specialists. Inter alia, it has to launch a massive

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programme for creating industrial awareness amongst its various constituents by utilising all media of communication - publications, audio-visual aids, public relations and personal contacts. In the years to come, the Federation has to grow further to be accepted as the "spokesman" of the fertiliser industry in the Arab States. Its objective should be, not withstanding the fact that it is a Manufacturers' Federation, to grow into a scientific organisation and an expert body "scepted and nurtured by its members and sought after by Governments of member countries for providing objective professional advice on all matters relating to the fertiliser industry in the Arab States. This is an attainable goal if the activities recommended in the project report are executed diligently and within a suitable time frame.

In a small compact organisation, no single activity or department can function in isolation. There are a lot of linkages and interfaces. Consequently, as the study progressed, it become necessary, in consultation with the Management of the Federation, to make a quick review of the existing organisation structure of the Federation and its staffing pattern.

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## II. ORGANISATIONAL SETUP

- II A. <u>Current Position</u>
- a) <u>Current Activities</u>

The activities of the Federation consist, among other things, of publication of a few journals and books, data collection and dissemination, documentation and library service, technical advice and training. For a young organisation of five years old with limited resources and staff, the activities are impressive though modest. The following are the publications being brought out by the Federation:

1)	Monthly Bulletin (Arabic & English)	32	pages	1000 copies
2)	Quarterly journal: Technology & Development (Arabic & English)	100	pages	1000 copies
3)	Fortnightly Commercial Bulletin (English & Arabic photocopied)	10	pages	300 copies
4)	Annual Statistical Report (English & Arabic photocopied)	80	pages	500 copies

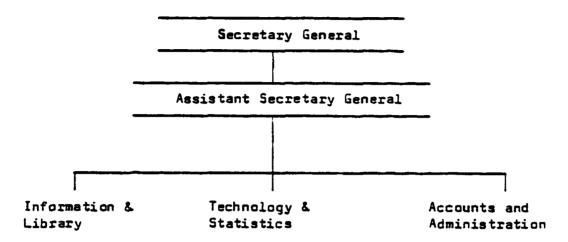
However, these activities need to be enlarged to cope with the objective that the Federation has set for itself.

### b) <u>Current\_Staff</u>

- i) Secretary General
- ii) Assistant Secretary General
- iii) Senior Researcher (Technology)
- iv) Researcher (Information)
- v) Junion Researcher (Statistics)
- vi) Accountant
- vii) Librarian
- viii) Four Secretaries

# c) <u>Organisational Structure</u>

The present organisational structure of the Federation is given below:



The existing organisational structure of the Federation seems to identify functions and jobs. But in practice, the responsibilities are not clearly defined or allocated.

### II.B. <u>Recommendations</u>

In order to enable the Federation to shoulder the responsibilities assigned to it, the following organisational set up is recommended. When making these suggestions, due cognisance has been taken of the proposed output that has been recommended in greater detail in Part III of this report which is considered essential to meet the objectives of the study.

### 1) <u>Publications & Public Relations Department</u>

The present Information Department also looks after the library and documentation. For efficient working of both the functions, it is recommended that the Information Department should be divided into two - Publications and Public Relations Department and Library and Documentation Section. The Publications Department will look after the complete work connected with publications, public relations and the audio-visual unit. (Full details of the programme are given on page 16-41).

### 2) Library & Documentation Section

This will be an independent new section and will look after the complete work relating to library and documentation. (Full details of the programme of work to be done by this Section are given on page 46.)

### 3) Technical and Training Department

At present, statistics is a part of the "Technical Department". Statistics is a specialised subject and should also receive more attention. Moreover, statistics will gradually cover all areas connected with fertiliser, i.s., production, raw materials, agriculture and related fields. Consequently, work connected with statistics should be separated and become a part of a new "Economics and Statistics Department". Since the present training programme relates mainly to technology subjects, training and technology should remain combined in the 'Technical and Training Department'.

This Department will, in the first instance, collect information on technological developments from all available sources, collate it and disseminate it to members. It will also render advice to members on the technology problems of fertiliser companies and raw materials producers.

The Training section will be responsible for keeping in touch with member-firms to draw up need based training programmes, schedule and then implement these. This will entail preparing a detailed framework of training programmes in various disciplines - drawing each programme, selecting faculty for each subject, getting trainees for the programme, its actual operation and evaluation leading to modified or new training programmes.

When the training activity develops further, it is bound to embrace other areas like agricultural sciences and marketing. At that stage, training may be separated into a separate department.

### 4) <u>Marketing & Distribution Department</u>

As the Industry grows and develops, marketing and distribution of fertilisers and raw materials assume significant importance. Marketing & Distribution costs form a substantial chunk of overall costs. Moreover, these activities put a heavy strain on the available resources.

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Efforts have, therefore, to be made to economise and optimise the utilisation of available capability. The members of the Federation will need constant guidance and assistance from the Federation in these areas. To advise members on these topics, specialised services would need to be rendered to them. This necessitates the setting up of a new department called 'Marketing & Distribution Department'. An expert in the field should be selected and put in charge of the Department and he should be able to develop the activities of the Department in the light of experience gained.

### 5) <u>Economics & Statistics Department</u>

Data collection, economic analysis and its dissemination has to develop into a major activity of the Federation. It should cater for all aspects relating to fertilisers and allied fields, be it agriculture and fertiliser use, marketing and distribution, production of raw materials and finished fertilisers. To do full justice to the job, it is recommended that a separate Economics & Statistics Department be set up immediately. It should be charged with the task of collecting data from members and other relevant agencies/sources on a regular basis, store the data scientifically, collate and analyse it. It will also disseminate statistics and analytical reviews for the use of members and to the cutside world. Details of the data collection programme are given on page 42.

### 6) <u>Agricultural Sciences Department</u>

At present, there is no Agricultural Sciences Department. However, advice on fertiliser use aspect is an essential part of the service to members of the Federation. It is, therefore, suggested that an Agricultural Sciences Department be established as early as possible so that authoritative technical advice can be provided to members on agronomical and fertiliser use aspects, crops and soils. The Department also has to prepare literature concerning agronomy and soil sciences for the use of members. Since this is also a specialised field, the need for a separate Department to handle this work is obvious.

### 7) Secretarial Department

A new department should be set up to look after corporate affairs like organising and keeping record of the Board Meetings and circulating these, and follow up of its decisions. Its other activities would be membership campaign, general administration, personnel administration, purchase, etc. The typing oool, despatch section and the service staff (peons, driver, gardener, etc.) will be under the direct control of this department.

### 8) Accounts Department

An Accounts Department has to be established which will look after the financial affairs of the Federation such as income and expenditure, budgeting, auditing, etc. When after some time regional offices are set up, financial matters concerning regional offices will have to be controlled by the Head Office.

### 9) <u>Despatch Section</u>

To ensure proper and timely mailing of publications and letters, a separate Despatch Section needs to be set up. At present one peon is doing this job along with many other duties. Consequently, the work gets neglected. This area of work should be clearly earmarked and a suitable incumbent appointed to handle this job. This work will include getting envelopes ready for publications, mailing, despatch, etc. Other sections can be relieved of this routine chore, thus enabling them to concentrate on more important issues.

### 10) <u>Typing Pool</u>

The current practice of sectionwise allocation of Secretaries results in a lot of wastage of time and uneven distribution of work. It is, therefore, suggested that all the Secretaries, except that of the Secretary-General, should be brought into a pool. This will ensure that typing work is distributed evenly among all the relevant employees resulting in improved productivity.

The proposed organisation structure of the Federation may be as per chart in Appendix I.

Some of the reallocation of work and reorganisation of departments mentioned above have already been accepted and implemented by AFCFP.

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### 11) Other Observations

Organisational set-up given above and the staffing pattern recommended on page 57 may be implemented in stages spread over a period of 3 to 5 years. The exact designation and the number of staff in each department will be determined by various considerations like work load, expansion of work in the Federation and, of course, finances. What is, however, important is the realisation and acceptance of the need for proper identification of specialised activities and grouping them logically and gradual y moving in the direction of a more rational organisational structure.

Moreover, each Departmental Head should be a specialist in the chosen field and be capable of handling and expanding the activities commensurate with the growth requirements of the Federation and to meet the needs of its members. Appointment of supporting staff will depend upon the exigencies of work and growth of the Federation as the yearu go by. The objective would be to encourage specialisation in various disciplines so as to provide efficient and high quality service to the members of the Federation. A cadre of specialised staff has to be built up with a second line leadership to ensure smooth and continuous execution of work without any break. It is the calibre of its specialised staff and the consequent quality of service which will ensure that members look up to the Federation for guidance. Thus only can the Federation command continued support from its members and build itself to face the challenges of the future.

### 12) Advisory Committees

For the successful functioning and growth of an industry Federation, cooperation and involvement of the members on one hand and the Governments of the member countries on the other is vital. Its success depends on making the Federation acceptable to them. To achieve this, a feedback from them is very necessary of what they expect from the Federation and the extent to which these expectations are being met.

Involvement of member countries and firms can be assured only through a sustained effort. Personal contact is very essential. Since this is time consuming and labour intensive, it becomes necessary to evolve an

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institutional framework which will provide this contact. It is, therefore, recommended that a number of Advisory Committees for various disciplines be formed composed of experts and operating managers at a senior level from the Industry and the Governments.

Heads of respective functions will serve as conveners of the Committees. They will be responsible for the work of the Committee and follow up of its recommendations, etc.

Some of the Advisory Committees that would be of immediate relevance to the Federation are:

- i) Publications Advisory Committee
- ii) Technical Advisory Committee
- iii) Economics & Statistics Advisory Committee
- iv) Agricultural Sciences Advisory Committee

Depending on the needs and based on experience, other Advisory Committees can be formed.

The broad terms of reference of these Committees in their respective fields would be:

- i) To review technological developments worldwide;
- ii) To study their impact on the members of the Federation;
- iii) To review the situation in the countries and members of the Federation
- iv) To draw up an action plan for the Industry;
- v) To review the activities of the Federation; prepare periodic plans of action of the Fed. to meet the members needs and monitor the progress of the plans.

These Committees should meet at regular intervals, the frequency being determined by experience. These meetings will have the additional benefit of bringing the members closer, developing personal comraderie amongst themselves and with the Federation. The flow of information and communication thus generated will be exceedingly beneficial to the members of the Federation.

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### 13) <u>Representation on Government Bodies</u>

Fertiliser raw materials and finished products have an important bearing on the economic development of each country on both the industrial and agricultural fronts. It is, therefore, essential that the Federation should build up close linkages with governmental and inter-governmental agencies in the countries covered by its activities. For this purpose, the Federation should actively seek representation on important bodies, national and inter-governmental agencies in the Arab Region concerned with the fertiliser industry, agriculture, etc. This will ensure that the views of the industry and its experts on all vital issues affecting the fertiliser industry are available to policy formulators and decision makers. This will in turn enable it to play an effective role in the economic, agricultural and industrial development of the member nations and the region. To be effective, the Federation must take steps to seek its acceptance as a responsible and representative body of the fertiliser industry in Arab States.

### 14) <u>Regional Offices</u>

For the Federation to grow and be effective, the impact of its activities has to be felt in all the member countries. As time goes by, and depending upon subsequent developments, it may become necessary to set up regional offices of the Federation in different geographic regions of Arab countries by grouping together a few contiguous countries. Regional offices would, amongst other things, handle regional problems and make the existence of the Federation felt in far flung countries. Setting up of regional offices will bring the Federation closer to its members. Decentralised set-up could cope with localised problems directly, quickly, and more effectively leaving the Central office to tackle more important issues of policy and laying down of guidelines.

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### III. <u>OUTPUTS</u>

Promotion of industrial awareness and information dissemination is one of the most important jobs of an Industry Association. It is a time consuming and long process. It calls for well organised and sustained hard work.

The Arab Federation is comparatively young and has already made a remarkable impact during the short period of its existence. The main vehicle of dissemination of information is its few publications. These are at present mostly informative. However, they lack technical content and moreover are not distributed widely enough to create a major impact.

Looking ahead at the tasks facing the Federation and keeping in view the projected expansion of the production capability and other activities of its members, a lot more needs to be done. It is apparent that a massive and an intensive programme of publications and public relations, data collection and dissemination has to be launched. For this purpose, an action programme has been recommended in this project which, when translated into action, will further foster growth of fertiliser industry and through it assist in the agricultural and industrial development of the Arab countries.

### Activities Recommended

The output of the project is grouped under six main headings.

- A. Creating industrial awareness and dissemination of information through
  - publications
  - public relations and
  - audio visual aids
- B. Data collection, storage and dissemination
- C. Library and Documentation
- D. Training Component
- E. Consultancy Component
- F. Followup Meetings

# III A : Publications, Public Relations / Audio Visual Unit

A service organisation like the federation will be recognised and accepted only if its existence and the services rendered to members get known. Moreover, it must produce literature of both technical and general nature to provide uptodate information pertaining to fertilisers quickly to its constituents. Attempt should be to concentrate on information which may not be readily available to them or in a form that is easy to comprehend. This data could then function as a compendium of reference material as well as current developments to keep its readers abreast of latest events. To achieve this purpose, a variety of publications (such as journals, posters, leaflets, booklets, books, handbooks, etc.) aiming at different target groups have to be printed and distributed widely.

At present, most of the publications of AFCFP are distributed free. It is recommended that as a matter of policy, all its publications should be priced, as free publications are often not taken seriously by the readers. Moreover, the resources of the Federation are limited and its activities should aim at becoming as self-supporting as possible. This will assist in widening its scope of work. However, till the Federation is well established, no doubt, some copies of its publications may have to be distributed free. Members of the Federation also have to be given some copies of the publications free of cost.

Bringing out the publications, particularly journals, in time is another important point that has to be taken care of while planning the publication programme.

The central theme of all publications should be higher productivity, energy conservation and all round growth, be it in mining, transportation, production or fertiliser use.

### 1. <u>Publications</u>

Bringing out publications has to be a joint corporate effort of all the functions and departments in the Federation. The responsibility for the collection of the relevant data pertaining to each function would

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primarily rest with the respective function/department. This then would have to be given to the publications department in a form ready for being brought out. The publications department will be responsible for suitably editing the material, its actual printing and distribution. Even in the case of distribution, the list of recepients would be decided primarily by the functions/departments concerned based on their knowledge of the experts in their respective fields.

In the beginning of the year, a publication programme for the whole year should be drawn up in consultation with various departmental heads and the Secretary-General and Assistant Secretary-General. Suggestions made by the various Advisory Committees referred to in an earlier section of this report would be reflected in this programme. Alongside that, detailed budgeting of publications also should be done. The programme has to aim at creating industrial awareness and focue on the role of fertiliser industry in improving the economic condition of the people in Arab countries.

### 1.1 <u>Coloured Slides on Fertilisers</u> (First Phase 1982-83)

It is necessary to create general awareness about fertilisers and raw materials in all Arab countries including those where agriculture and fertiliser use is not of much economic significance. For this, a set of multi-coloured slides should be designed and sent to members. The number of slides may be about 10. These will deal only with basics of fertilisers in non-technical terms in Arabic. Members may be asked to print these slides as coloured posters in size 3 ft. by 2 ft. Since the posters have to be printed by using offset process, this kind of printing may not be available in all Arab countries. In such cases, the Federation should supply posters and not slides. Each slide should have a bold title, an illustration and few essential details. Examples of some titles are:

- i) What is fertiliser?
- ii) What is N?
- iii) What is P?
- iv) What is K?
- v) What are major fertiliser materials?
- vi) Raw materials available in Arab World

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- vii) Why use fertilisers?
- viii) Why balanced fertiliser use?
- ix) Fertiliser helps farmers prosperity
- x) Produce more food

These slides should be prepared in large numbers and distributed to as wide an audience as possible - AFCFP members, government officials, agricultural colleges and universities and other organisations connected with fertiliser and agriculture with the request that they may be exhibited on important occasions such as meetings, seminars, etc.

The endeavour should be to print and distribute all the posters/slides in the first phase itself. i.e. 1982-83.

### 1.2 <u>Folders on Fertilisers</u>

A series of folders of about 4 pages each and about 12 in number to begin with may be brought out. Each folder should deal with various fertilisers used in Arab countries, essential raw materials produced and exported and fertiliser use for important crops. These may be printed in colour and distributed widely. These will contain more details than posters and should be written in a non-technical language in Arabic and suitably illustrated. Examples of some of the titles are:

- i) Urea
- ii) Rockphosphate
- iii) Sulphur
- iv) Potash
- v) What are plant foods?
- vi) Why use fertilisers?
- vii) Need for balanced use of fertilisers
- viii) Fertilising orchards
- ix) Fertilising wheat crop
- x) Fertilising date palms
- xi) Fertilising vegetable crops
- xii) Fertilising olive palms

Information on technical, agronomic, economic and use aspects of these products should be included in each leaflet in simple and non-technical language. The object is to educate the public on the basics of fertiliuers, crops and raw materials.

The folders should be widely distributed to AFCFP members, government officials, agricultural universities and colleges, extension workers and progressive farmers.

The exict number of each will depend upon the assessment of requirement by member firms and experience gained as time goes by.

The aim should be to bring out these folders in the first phase itself (1982-83).

### 1.3 <u>Journals</u>

a) <u>Arab Fertiliser (English)</u> (To start in the first phase 1982 but will be a permanent programme)

A Federation like AFCFP should have a well brought out periodical to act as its mouthpiece. Its content, should be such as to carry weight and conviction with its readers. It should be a composite journal covering all aspects of the industry - technology, marketing, use, news items, report of meetings, seminars, success stories, etc. The present monthly bulletin can serve this purpose if it is improved on the following lines:

- i) It should be given a meaningful title, say 'Arab Fertiliser'.
- ii) Its cover should preferably have a photograph or diagram to illustrate a leading article inside.
- iii) It should have an Editorial Board of experts with the Head of the Department as its Editor. The names of AFCFP Board of Directors and the Editorial Board should be published on the contents page every month to highlight to the public that it has the backing of the top brass in the industry and its various technical experts.

The contents in each issue should broadly be on the following pattern:

- An editorial dealing with a topical subject of interest to the industry every month;
- ii) One article on fertiliser technology;
- iii) One article on fertiliser use;
- iv) One article on fertiliser marketing;
- v) One article on raw materials;
  - All these articles should have abstracts in the beginning and references of literature at the end, if available;
- vi) Brief statistics on fertiliser situation in Arab countries during the previous month;
- vii) A series of articles evenly spread over the year on fertiliser industry in each Arab country;
- viii) Another similar series on fertiliser industry abroad;
- ix) Success stories of technologists, marketers and agronomists.
  X) Fertiliser Abstracts

In the first phase of the project, the 'AFCFP Fertiliser Abstracts' will be a part of 'Arab Fertiliser'.

For obtaining original articles, is list of contributors should be compiled and they should be requested and persuaded to contribute articles regularly and in time. Preplanning to the extent of 3 to 4 months for each issue will be helpful.

Better productivity in all fields should be the main theme of this journal.

Attempt should be made to ensure that articles are original and suitably illustrated. If original articles are not forthcoming in the beginning, articles presented at seminars, training programmes, etc. or published in other journals could be reproduced till enough contributors are coming forth. Number of pages for each issue and number of copies should be decided in advance. Once the journal is fully established, a few Special Numbers of the journal (on Technology, Production, Agronomy, Marketing) could be brought out on special occasions carrying invited articles from specialists in the field.

Occasionally, review articles on important topics of interest to the industry prepared by specialists in their respective fields should be published as a supplement in the journal. Sufficient reprints of these review articles should be taken and mailed to important persons in the industry and the Governments of Arab States and to international organisations. Thus, the latest and authoritative information on the subject chosen can be provided to senior people and policy makers through these review articles even if they have missed reading these in the journal itself.

From the production point, there is ample scope to improve the journal. For instance, each page should be composed in three columns and the typography of headings of articles should be bold and crisp. More illustrations and colour will attract and hold readers attention in the earlier years.

Advertisements should be put on the inside cover pages and before and after the text pages so that the reading matter may be continuous and can be read without getting disturbed.

Authors should be paid nominal honoraria and 25 reprints of each article supplied free of cost. This will motivate people to contribute authentic articles and help in building up a cadre of writers and contributors.

In order to attract quality articles for AFCFP journals, giving annual awards for the best three articles in each discipline - Technology, Agricultural Sciences, & Marketing - may be considerec.

This journal will be a priced publication. However, till it is firmly established as the front line publication of the Federation, it may be necessary to distribute sufficient number of copies free of cost to important people to create an awareness and appreciation of the importance of the industry and the role of the Federation. It should be posted to readers on a fixed date every month.

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The journal should be distributed to:

- 1) All members of the Federation;
- All government officials connected with fertilisers and agriculture, agricultural universities and colleges;
- Leading editors and newspaper correspondents;
- 4) Political leaders;
- 5) Progressive farmers;
- International organisations;
- 7) Senior persons in other related industries.

The Federation is publishing a 'Quarterly Journal on Technology & Development'. 'Arab Fertiliser', in its new get up, will carry technology articles also in addition to other articles. Therefore, it is suggested that the quarterly journal on Technology and Development may be discontinued and the material meant for it may be published in the monthly journal 'Arab Fertiliser'.

However, if sufficient quality articles on technology are available at a later stage, the quarterly journal can be revived at that time if at all considered necessary. Though is unlikely.

b) <u>AFCFP Fertilize: Abstracts (English)</u> (Second Phase - 1984-85)

To begin with Fertiliser Abstracts will be a part of 'Arab Fertiliser'. Depending on the progress, it could be made a separate publication in the second phase.

It will serve the needs of experts in the field of fertiliser technology, agronomy, marketing, etc. amongst its members. The journal should carry abstracts of outstanding articles appearing in leading journals all over the world and bibliography of literature. The purpose is to bring to the notice of the readers latest developments taking place in the fertiliser field all over the world which they may not otherwise get to know about.

Depending upon each reader's needs, he can seek more details or even ask for copies of articles. Arrangement, therefore, has to be made to supply photocopies of reprints of articles on request and on payment. The material for this publication would be prepared by the Documentation Section; its editing, printing and distribution would be the responsibility of the Publications Department. It will not carry any advertisement as it will be a purely scientific journal.

When it becomes an independent journal, it should have 6 to 8 pages and it should have separate mailing list consisting of senior persons in fertiliser companies dealing with technology, marketing, use, etc., government officials, officials of agricultural universities, technical and professional colleges and international organisations.

### c) <u>Arab Fertiliser in Arabic (Al-Samad Al-Arabi)</u> (To start in first phase - 1982 - but will be a permanent programme)

The present practice is to publish English and Arabic language articles in the same monthly bulletin. The readership of the two languages is separate and their interests diverse. Consequently, there is need to separate the two languages so that the journals can be built up in the right direction.

It is, therefore, suggested that a separate journal in Arabic called 'AL-Samad AL-Arabic' may be started. Its target audience will be the field level fertiliser company officials, government functionari \_, dealers and some progressive and large farmers. This will be a nontechnical journal and may be built up as a sound and informative monthly journal on fertilisers in Arabic.

### 2. Books

# 2.1 <u>AFCFP Fertiliser Statistics (English and Arabic)</u> (To start in first phase - 1982 - but will be a permanent programme)

The present annual publication 'Annual Statistical Report' may be renamed 'AFCFP Fertiliser Statistics' and should be built up into a standard reference compendium on fertiliser statistics in Arab States.

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It should be divided into the following four main groups so as to enlarge its scope, coverage and its utility to members:

- Fertiliser Statistics in the Arab Region and member countries;
- Agricultural and allied statistics in the Arab Region and member countries;
- 3) Selected world fertiliser and agricultural statistics;
- 4) List of members of the Federation.

These should have the following sub-divisions:

### 1. <u>Fertiliser Statistics</u>

- (a) <u>Fertilisers</u>
   (Map showing location of fertiliser factories in
   AFEEP countries)
- 1. Countrywise capacity materialwise and nutrientwise
- 2. Countrywise actual production materialwise and nutrientwise
- 3. Countrywise distribution :
  - Home consumption
     Export
     materialwise and nutrientwise
- Projection of capacity, production, distribution and export development - long term - 5 to 10 years.
- 5. Countrywise investment on fertiliser projects
- (b) Fertiliser Raw Materials (Map showing sources of raw materials)
- Countrywise reserve of raw materials natural gas, crude oil, phosphate rock, sulphur, potash, etc.
- 2. Countrywise production of raw materials
- 3. Countrywise distribution :
  - Home consumption
  - Export
- 4. Countrywise capacity and production of 'intermediates' ammonia, phosphoric acid, sulphuric acid, etc.
- 5. Countrywise distribution :
  - Home consumption - Export
- 6. Analysis of rock, sulphur, potash, etc.

- (c) <u>Fertiliser and Fertiliser Raw Materials</u> <u>Prices and Ocean Freight</u>
- Countrywise farmers' prices of fertilisers and of raw materials for export and ocean freight thereon to;

### 2. <u>Agricultural and allied statistics</u>

- a) Land Utilisation Statistics and Import of Agri Commodities
- Countrywise total geographical area, gross and net cropped area, gross and net irrigated area;
- Countrywise area and production of different crops and their value;
- Countrywise import of raw agricultural commodities (wheat, rice, cotton, etc.) and their value.
- (b) <u>Population Statistics</u>
- Countrywise total (rural and urban) population and the population engaged in agriculture, mining, processing industry, etc.

### 3. <u>Selected World Fertiliser and Agricultural Statistics</u>

- (a) Production capacity of N and P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O in selected countries vis-a-vis - AFCFP countries;
- (b) Production, consumption and export of N and P<sub>205</sub> and K<sub>2</sub>0 in selected countries vis-a-vis AFCFP countries;
- (c) Production and export of raw materials (rocks, sulphur, phosphoric acid) in selected countries vis-a-vis AFCFP countries;
- (d) Countrywise investments abroad on fertiliser raw materials and finished fertiliser products.

# 4. List of AFCFP Members

The book should also include the addresses of members of AFCFP for wider publicity.

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### Methodology of Data Collection

It would be seen from the proposed contents of Fertiliser Statistics outlined above that the Statistics Department would be required to collect the data from each fertiliser manufacturer to arrive at the countrywise situation on capacity, production, distribution, exports, etc. of both fertilisers and fertiliser raw materials. Raw materials' mines are not necessarily owned by fertiliser producers in all the AFCFP countries; the data on raw materials resources, production and export would have to be collected through individual country governments.

For timely supply of adequate data, focal points have to be established in member-countries with a view to strengthening the objectives of AFCFP. Focal points persons should be entrusted with the job of collecting data from these countries, after receiving proper and sound briefing from the headquarters of AFCFP. The Statistics Department would send basic proformae encompassing the objectives and suggest to the person incharge of focal points at first to mail the proformae to each manufacturer followed by a personal visit to them a fortnight later if necessary. This may have to be repeated to achieve desired results in the earlier years but hopefully will not be necessary as the system gets established.

On receipt of data, the person concerned at each focal point would compile the data for his Region on the lines indicated by the Statistics Department of AFCFP and forward the same to the headquarters. A word of caution is necessary. Manufacturers should be told that no plantwise data would be published but, at the same time, plantwise data are required to arrive at the country's situation.

The aim should be to build this publication into the main source of historical data on all aspects of fertilisers and allied subjects in the Arab States. It will act as a ready reference data bank.

It should be a priced publication, have a separate mailing list and be distributed to members, government officials, agricultural universities and colleges and international organisations.

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### 2.2 <u>Annual Review of Fertiliser Production</u> and Consumption in Arab Countries (English) (Second phase - 1984-85)

A critical review of fertiliser and raw material production, consumption and export and future prospects every year will be a useful exercise to assess the fertiliser situation in each country in the Arab Region. The analysis will also help to highlight problems and suggest corrective steps to be taken to improve production, transport, storage, consumption, etc. All the Departments of the Federation will have to collaborate in compiling data and preparing the material.

This Review should be widely distributed in the form of a supplement to Arab Fertiliser. If brought out in a suitable format and circulated to the right quarters, it will go a long way in educating the public regarding the progress of the fertiliser industry and its contribution to the general economic development of the region.

### 2.3 <u>Fertiliser Production in Arab Countries (English & Arabic)</u> (Second Phase - 1984-85)

Economics & Statistics Department should periodically compile details of each factory and raw material producing unit in each Arab Country. It should indicate capacity, product pattern, investment, process employed, foreign collaboration, raw materials used, future expansion plans, etc. for nitrogenous, phosphatic and complex fertiliser projects (including raw materials) in Arab States in a tabular form. This book will give a bird's eye view of the fertiliser and raw material situation in the Arab Countries. It may have to be printed in both English and Arabic for greater impact.

### 3. <u>Handbooks</u>

(Second and Third Phase - 1984-86)

It is felt that there is inadequate authentic literature in Ara language for the non-technical administrators and laymen covering, different aspects of fertilisers. But since fertilisers will form an ever increasing component of each country's economy, it is essential that this gap is bridged. It is, therefore, recommended that suitable publications carrying detailed information on various aspects of fertilisers in Arabic called Handbooks should be brought out for wide distribution.

These Handbooks will deal with fertiliser Technology, Marketing & Usage. These will be in Arabic using simple language, suitably illustrated so that these can be easily understood by even nontechnical people be they in Government, Industry, Financial Institution or Academics. These booklets will serve as a ready reference material for the layman who has to deal with or is interested in any aspect of fertilisers.

### 3.1 <u>Handbook on Fertiliser Technology (Arabic)</u> (Second Phase - 1984-85)

This should be the first Handbook in the review to be taken because of the importance to the region.

This book will cover all aspects of fertiliser production and technology in a simple language in an exhaustive manner for use by more nontechnical people. Basics of fertiliser technology will have to be explained clearly supported by photographs and diagrams to illustrate different processes.

Broad'; the contents should be as follows:

iser Industry in Arab countries:

to uction of fertilisers

- a) General introduction
- b) Nitrogenous fertilisers
- c) Phosphatic fertilisers
- d) Potassic fertilisers
- e) Capacity
- f) Fertiliser Industry prospects during the next decade

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Technology/Production of Fertiliser Products

- i) Intermediates
  - a) Ammonia
  - b) Nitric acid
  - c) Sulphuric acid
  - d) Phosphoric acid
- ii) Nitrogenous fertilisers
  - a) Ammonium sulphate
  - b) Ammonium sulphate nitrate
  - c) Ammonium nitrate
  - d) Calcium ammonium nitrate
  - e) Urea

### iii) Phosphatic fertilisers

- a) Ground rock phosphate
- b) Single superphosphate
- c) Triple superphosphate

### iv) Potassic fertilisers

- a) Potassium chloride
- b) Potassium sulphate
- v) Complex fertilisers
  - a) Ammonium phosphate sulphate
  - b) Ammonium phosphates
  - c) Nitrophosphates
  - d) Urea ammonium phosphates
  - e) NPK complex fertilisers

### vi) Raw materials

- a) Rock phosphate
- b) Sulphur

### 3.2 <u>Handbook on Fertiliser Marketing (Arabic) (1985)</u>

This book will deal with the marketing and distribution of fertilisers and raw materials produced in the Arab countries. There will be an exhaustive coverage of marketing in a non-technical language. Chapters for this book could be broadly as follows:

- a) Agronomical aspect of fertiliser use;
- b) A review of fertiliser production, consumption and export;
- c) Marketing management;
- Analysing fertiliser market;
- e) Fertiliser distribution;
- f) Logistics;
- g) Fertiliser pricing;
- h) Market development;
- i) Marketing of raw materials;
- j) Marketing for export .

### 3.3 Handbook on Fertiliser Use (Arabic) (1986)

This book will deal with the fertiliser use aspect in non-technical language and will carry information on soils, fertilisers, crops, their inter-relationship, balanced fertilisation, etc.

The main chapters of the book could broadly be as follows:

- a) Fertilisers and their use
- b) Plants need food
- c) Soils of Arab States
- d) Soil fertility and its maintenance
- e) Organic manures
- f) Chemical fertilisers
- g) Nitrogenous fertilisers
- h) Phosphatic fertilisers
- i) Potassic fertilisers
- j) Complex fertilisers
- k) Mixed fertilisers
- 1) Other fertiliser materials
- m) Micronutrients
- n) Soil conditioners and soil amendments
- o) Efficient use of manures and fertilisers
- p) Fertiliser and water use
- q) Economics of fertiliser use

#### 3.4 Information Bocklets (Arabic) (First to Third Phase - 1982-86)

Once the industrial awareness has been created, dissemination of information in more concrete forms can be taken up. For example, a series of educational books, may be brought out covering important subjects relating to fertilisers, intermediates, crops and raw materials. Each book will be of about 50-100 pages and will form a part of the "Product Series". About 3 books could be brought out ina year. Broad subjects that may be covered are:

#### Product Series

#### 1. Fertilisers

Manuscript for each book in 3.3 and 3.4 above has to be prepared by specialists commissioned by the Federation.

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The Federation may not have adequate exp rts on its staff for writing the various Handbooks in the first instance. It is, therefore, suggested that to begin with experts from the industry, government and agricultural universities in different disciplines should be commissioned to prepare various chapters of the different handbooks, on payment basis if necessary.

The books should be sent to all those who are connected with or interested in fertiliser in the broad sense whether in government, industry, academic and financial institutions. These handbooks will improve their understanding of the nature of the fertiliser industry in its various facets.

It is appreciated that preparation of these publications will take time. It is, therefore, necessary to lay down priorities. Considering the importance of production of raw materials and fertiliser in the Arab Pegion, may be the Technology Handbook should receive priority. The other two can be taken up subsequently in a phased manner. A time schedule for publications is given below:

Tit.	le	Language	Periodicity	Phase	
1)	Journals				
	i) Arab Fertilisers	English	Monthly	I	(1982-83)
	ii) Arab Fertiliser	Arabic	Monthly	I	
	iii) AFCFP Fertiliser Abstracts	English	Monthly	II	(1984-85)
2)	Books				
	i) AFCFP Fertiliser Statistics	English & Arabic	Annual	I	·
	ii) Annual Review of Fertiliser Produc- tion & Consumption in Arab Countries	English	Annual	II	•
	iii) Fertiliser Production in Arab Countries	Arabic & English	Annual	III	(1986)

## Schedule for publication of journals, books and booklets

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Title			Language	Periodicity	Phase
3)	Handb	ooks			
	i)	Handbook on Techno- logy & Raw Materials	Arabic	Ad hoc	I
	ii)	Handbook on Fertiliser Marketing	Arabic	Ad hoc	II
	iii)	Handbook on Fertiliser Use	Arabic	Ad hoc	III
4)	Produ	<u>ct Series Booklets</u>			
	i)	Urea	Arabic	Ad hoc	
	ii)	Diammonium Phosphate	Arabic	Ad hoc	
	iii)	Single Superphosphate	Arabic	Ad hoc	
	iv)	Triple Superphosphate	Arabic	Ad hoc	
	v)	Mono Ammonium Phosphate	Arabic	Ad hee	
	vi)	Ammonium Sulphate	Arabic	Ad hoc	

Booklets on other products can be considered as the industry develops.

It will be necessary to update these handbooks every 3 to 4 years incorporating therein the latest technological developments.

#### 3.5 <u>Country Profiles (Arabic)</u> (Second & Third Phase 1984-86)

For country profiles, AFCFP in consultation with its members should agree on the format and the broad outline. Thereafter, a suitable person within the industry if possible or outside if necessary, might be identified and commissioned to write each country profile. These can then be edited in the Federation and published.

To facilitate the work the authors may be given suitable honorarium.

In this way, the work will get decentralised and get done much quicker than if the Federation staff were to write each of the profiles. In the manner suggested above, it should be possible to have all the write ups ready in about an year's time if not earlier. But because of the pressure on staff, it may become necessary for the Federation to suitably phase the programme over a period of may be 2 years to complete the series.

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Very little information regarding industrial, agricultural and raw material situation in each member country is currently available in one place. The Federation should give the lead in compiling this information for each country by initiating the publication of a "Country Profile Series". One book has to be published for each country giving information on the following aspects:

- i) General background and geography
- ii) Administrative setup
- iii) Population
- iv) Soils
- v) Rainfall and climate
- vi) Agricultural situation crops grown, fertiliser use, etc.
- vii) Industrial situation in general and position of fertiliser

industry in particular and scope of expansion

- viii) Raw material availability for fertiliser industry
- ix) Industrial infrastructure
- x) Availability of trained manpower and expertise
- xi) Export potential for finished fertiliser and raw materials

The books should be well illustrated with photographs. It will serve as a useful guide to all those who would like to be informed about the different Arab States, and more particularly those who may be interested in investment in the fertiliser industry in Arab States. Each book may be of 20-30 pages. The job will be facilitated by the Federation issuing a suitable format for the collection of information and photographs from its members.

3.6 <u>Miscellaneous Publications</u> (First Phase - 1982)

It is suggested that a brief leaflet on 'What is AFCFP' and 'Why Join AFCFP' should be prepared for distribution to prospective members of the Federation.

It should give details of the objective, structure, membership, various activities, etc. of the Federation. It will help the public to know about the AFCFP more intimately.

#### 4. Distribution of Publications

Not only have the publications to be well edited, printed and produced in time, but they should also reach the readers in time. Thus, proper distribution of publications assumes importance and is an integral part of the work of Publications Department. Usually, this aspect of work is neglected, thereby reducing the utility of many publications.

Publications Department should maintain a separate mailing list for each publication and these have to be updated by adding new and deleting unnecessary addresses. A copy of this list must be given to the Despatch Section, sufficiently in advance so that publications can be mailed to the readers in time.

Number of copies of each publication to be printed should be carefully assessed in advance so that excess copies are not printed. This will avoid wastage of money and storage space.

Until the publications are read by the readers and they act on that, no industrial awareness can be created. Attractive publications received in good condition assist in this process. Per contra, publications received in a damaged condition create a poor impression on the reader and may never be read. Steps have, therefore, to be taken to ensure that the publications are packed properly before despatch so that they reach the readers without any damage.

Main categories of readership for various publications are likely to be:

- i) Directors of the Federation
- ii) Members of the Federation (with names of senior members of the staff wherever necessary)
- iii) Government officials connected with the subject
- iv) Scientists in agricultural universities and reach institutes
- v) Extension staff in the department of agriculture
- vi) Fertiliser dealers
- vii) Progressive farmers
- viii) Editors and special correspondents of newspapers, radio & T.V.
- ix) International organisations
- x) Opinion leaders in other industries (related or otherwise),
   political, economic and academic circles

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Of course, not all of them would be interested in all the publications. For each publication, a list of recipients would have to be carefully drawn up to ensure proper effectiveness of the communication meant for each target audience. These lists must be periodically reviewed and updated.

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In a modern society, mass media like newspapers, technical journals, radio and TV cover a wide spectrum of the population. Consequently, these media have a very crucial role to play in disseminating information and creating industrial awareness. Therefore, it is necessary to keep in close touch with senior persons working in these media and feed them continuously with information on fertilisers which will help them in disseminating this further. Experience has shown that authentic information provided to them regularly in a suitable capsule form is easily acceptable and used by them as it gives them material useable readily without having to do much preparatory work themselves.

The techniques of modern publicity and public relations have to be employed skillfully to create an industrial awareness and to make the federation and its activities well known to the public. For effective implementation of this phase of the programme, the following measures have to be taken.

### i) <u>To compile a separate mailing list of persons holding</u> <u>Senior positions</u>

To compile a separate mailing list of persons holding senior positions in newspapers, radio, TV, News agencies, governments, agricultural institutions, etc. and particularly such people who deal with various aspects of the fertiliser industry. These will form the core of the target audience for P.R.

#### ii) AFCFP P.R. Release (English)

This is a new service that should be started to reach opinion leaders in the Arab World. Under this programme, reprints of important articles appearing in AFCFP journals or other items should be mailed with a

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covering letter addressed to important persons in newspapers, radio, TV, Government officials, etc. by name requesting them to make the best use of the material. This will be the main channel of communication with the opinion leaders in the Arab countries. Names of these persons should normally be included in the mailing lists of AFCFP journals also.

#### iii) Press Conferences

At least once in a year, a Press Conference should be organised on an important occasion, may be at the time of the Annual General Meeting of the Federation. On this occasion, the Chairman, Vice-Chairman, Secretary-General and the Directors of the Federation could explain to the representatives of the mass media like TV, radio and press the achievements (and failures if any and the reasons for that) of the fertiliser industry during the past year and the future plans. This will give good publicity to the activities of the Federation also.

Besides, interviews and discussions by Chairman, Vice-Chairman and Secretary-General with experts could be arranged on the radio and TV network. Cumulatively all these will have a multiplier effect in reaching the various sections of the people and creating industrial awareness.

Since the Federation covers a large number of countries, the invitees for the press conference will have to be carefully selected from local representatives so as to get wide coverage throughout the Arab World.

Senior representatives of the Federation could, at the time of visits to various State Capitals, avail of the opportunity to establish contacts with the national agencies in various countries.

Local press conferences could be organised to coincide with meetings, training programmes, seminars, etc. at different locations.

#### iv) <u>Newspaper Supplements</u>

At the time of the Annual General Meeting, supplements in a few leading English and Arabic papers may be brought out. Editorial material - an

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article by the Chairman, Vice-Chairman and Secretary-General each may be supplied to the newspapers. Since the readership of newspapers is large, this will be an effective way of publicising the activities of the Federation and the fertiliser industry.

#### v) <u>Contribution of Articles</u>

Whenever occasion demands, the staff of the Federation should contribute articles to technical journals and newspapers explaining the status of the industry. This will help in educating the public.

#### vi) International Seminar

An international seminar on a topical subject once in two years, and every year in due course, should become a regular feature of the activities of the Federation. This will be an occasion to bring together expertise from all over the world on the chosen subject. The advantages of such a seminar from the view of improving skills and knowledge of the technical people are obvious. But this occasion will have an important bearing on the subject of information and communication also. The papers presented and resume of discussions and recommendations stemming therefrom should be printed as a record and distributed widely. The information will thus percolate to even those who may not have attended the seminar. A multiplier effect of about ten contacts from every participant would not be unusual.

Also, the occasion can be used for organising an exhibition by the Federation and member-firms and for the sale of Federation publications and of course a Press conference and press supplements on the lines outlined earlier.

This seminar must gradually develop into an important event of the Federation's activities and will help in projecting the image of the Federation to the outside world and to publicise the achievements of the fertiliser industry in the Arab States.

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#### vii) Group Discussions and Workshops

Group Discussions and Workshops on subjects of interest to the industry are already being organised frequently in different Arab States in which representatives of the Industry, Government and research institutes take part to bring about the necessary inter-action. It is suggested that this activity should be strengthened. Here again, apart from its utility as an instrument for improving technical competence the multiplier effect for information dissemination, communication and the P.R. aspect will be immense.

Proceedings of these should be compiled and distributed widely. Recommendations of these meetings could be publicised through AFCFP journals, radio and television and newspapers.

# viii) Country Seminars-cum-Exhibition (Second and Third Phase - 1984-87)

The existence of the Federation and its usefulness have to be felt in all its member countries. To accelerate this process, it is suggested that seminar-cum-exhibitions should be organised by rotation in different member countries of the Federation. Staff members of the Federation would have to assist its local members in the host country to organise the seminar on a subject of interest to that country. Its duration would be determined by the topic and the needs of the country.

From the point of view of communication, a local press conference and newspaper supplement on the occasion would be important. The opportunity could be used to sell and distribute Federation publications.

The number of such seminars that can be organised every year will depend upon the resources. But to start with, probably two such seminars every year should be aimed at. It could gradually be built up as needs warrant and means permit. But there is no doubt that this will be a very effective way of creating an impact in each member country.

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III A (3) <u>AUDIC-VISUAL AIDS</u> (First to third phase - 1982-86)

It is recommended that an audio-visual unit be built up in the AFCFP mainly to serve the members of the Federation. This unit should consist of the following:

#### i) Photographic albums

Photographs of fertiliser factories and raw material mines of member companies, various crops grown in Arab countries, important personalities in the industry, meetings and group discussions should be collected. These should be suitably grouped and put in separate albums so that these are readily available for use in AFCFP publications and by member firms of the Federation.

#### ii) <u>Slides</u>

There is an urgent need for a collection of inf rmative and educational slides on various aspects of the fertiliser industry dealing with production, marketing, use, pollution control, raw material mining, processing, etc. These will be available for use of the Federation and its members for meetings, seminars and training programmes. A series of 15-20 or more will be suitably combined to deal with one subject. Members can even purchase copies of these slides from the Federation for use in their country and company.

#### iii) <u>Video tapes</u>

Video tapes on various topics of general interest to the industry should be prepared and distributed to member-firms which can be played at meetings and training programmes to various groups. This can also be done on a commercial scale. For preparing the Video tapes, private agencies may be considered.

#### iv) <u>Films Library</u>

A collection of films on fertilisers and general management topics like communication, behavioural sciences, etc. may be built up by purchasing films from member-firms if available or from other countries if necessary.

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These films can be loaned to members and even non-members on request and shown at seminars, training programmes and meetings. These films will have a tremendous educational value.

### v) <u>Exhibition Kits</u>

Exhibition kits consisting of photographs, charts and fertiliser samples should be made based on a chosen theme. These can be varied periodically as necessary. These can be sent to members of the Federation to be put up at workshops, etc. Along with the Federation, members should be encouraged to take part in these exhibitions so that a sense of partnership is built up.

#### vi) Regional Exhibitions

Federation should encourage its members to participate in industrial, agricultural and trade fairs in their countries. In the case of more important fairs or exhibitions of a regional or international character, Federation itself could take the lead and participate therein, if necessary with the active collaboration of its local members. This will provide an opportunity for the activities of the industry and the Federation to be made known to a vast audience.

#### III.B. DATA COLLECTION, STORAGE & DISSEMINATION

The present practice is to send a proforma to member firms once in a year and collect data on production of raw materials, intermediates and fertilisers (NPK). These are compiled and published (photocopied) in a book. Data collection is not adequate and needs to be better organised in order to enable the Federation to be equipped with detailed information on all aspects of the fertiliser industry in the Arab countries.

AFCFP has to become a repository of data on various aspects of the fertiliser industry in the Arab States. In addition, data also should be readily available on agriculture and world statistics to provide comprehensive data coverage to members. Ways and means have to be found for collecting data from each factory in each country on fertiliser production, transportation, consumption, export, prices, etc. storing the data scientifically, analyse the data more frequently, may be quarterly, and disseminate it regularly for the use of members and others.

To make the collection of data, storage and dissemination more effective and useful, the following suggestions are made:

#### 1) <u>Collection of data</u>

The present material collection is not adequate enough. To collect data from member-firms exhaustively, a set of suitable performae (specimen given in Appendix VII) has to be drawn up which should contain all relevant information. Each of its member-firms should be requested to fill it up and return it to AFCFP latest by 10th of the following month. Few examples of information that could be asked for in the proformae are given below (subject to such modification as the Federation may consider necessary from time to time).

- Factorywise opening stock, production, despatches and closing stock with major reasons for low production, if any (Proforma I).
- ii) Export of fertilisers from each plant/country and destination with FOB/CIF prices realised (Proforma II).

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- (iii) Mode of transporting fertilisers and freight charges (Proforma III).
- (iv) Raw materials produced, exported, destination and prices realised (Proforma IV).
- (v) Consumption of fertilisers countrywise (Proforma V) (materialwise and nutrientwise)

As mentioned earlier, these are only a few specimens of the type of statistical information that can be collected. Depending on the needs, these can be modified, amended or increased. The object is to collect essential data on various aspects of the industry - production, distribution, consumption, export, etc. This will be useful as a data base readily available with the Fedration. From this data can be built up such information as may be considered necessary to prepare review papers, meet members needs, etc.

The present problem is that members are not supplying data regularly or in the required manner. This problem is not unique to the Federation and happens elsewhere too. Gentle pressure and persuasion and constant follow up is necessary in the initial stages till the system gets stabilised. It is suggested that the active support of the Board members is sought to ensure compliance by the member firms with the Federations requirements. Advisory Committees, when formed, can most certainly help in this matter.

In each country, focal points for collection of data should be established so that communication becomes easier. People concerned at focal points should be brought together periodically and they should be advised on the steps to be taken for collection of data. Usefulness of the exercise should be explained to them in detail at the meeting so that data collection becomes easier.

### 2) <u>Storage of Data</u>

After collecting data, it has to be stored systematically and scientifically. Simplicity should be the hall mark of any system. Although computerising is feasible, it is recommended that at this stage data may be transferred to and stored in cards specifically designed to meet the Federation needs (specimen of card given in Appendix VIII).

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With the growth of the Federation, data collection is bound to increase in the years to come. Therefore, it is necessary to plan for computer facilities to process the data electronically at a later stage.

One card should be assigned to one factory. This card would contain month to month factory's fertiliser production, home distribution and exports - all in terms of N,  $P_2O_5$  and  $K_2O$ . There will be as many cards as the number of factories in a country (Factory Card - Fertiliser).

An ther card should be assigned to a country in which all factories' month to month total would be recorded for the above items. There would be as many cards as there are members of the AFCFP. (Country Card -Fertiliser).

Similar set of cards would have to be developed for raw materials production and export. (Factory Card - Raw Materials and Country Card - Raw Materials).

A third set of cards would record fertiliser retail prices and export prices of raw materials. Factory as well as country cards would have to be developed. It is not necessary to give exact figures; a range would be enough. (Price Card)

The AFCFP should ensure that the cards are updated by a specified date so as to attend at short notice to querries received from members and the public.

#### 3) Dissemination of Data

The data received from various sources has to be studied and analysed by respective experts within the Federation. It has then to be disseminated through various channels for the use of members and the public - through AFCFP publications and other media in a manner that would be meaningful to its recipients. These have to be suitably determined in consultation with members and its other constituents moderated by the experience of the Federation's central office.

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For this purpose, the following publications are suggested to start with:

#### a) <u>Fertiliser Production</u>

The production statistics collected every month from members should be compiled end-productwise (urea, DAP, etc.), be photocopied and circulated only among member companies every month. This should be a classified document. Only countrywise data could be made public.

#### b) <u>Monthly Fertiliser Scene</u>

A feature 'Fertiliser Scene' giving data on the fertiliser scene in Arab countries with a critical analysis should be published every month in the monthly journal 'Arab Fertiliser'.

The data collected should be used in Federation's other publications such as 'AFCPF Fertiliser Statistics', 'Annual Review', and 'Fertiliser Production in Arab Countries'.

#### III. C. <u>LIBRARY AND DOCUMENTATION</u> (First Phase 1982)

To keep abreast of the fast developments taking place in scientific and technical fields all over the world, the setting up of a Library and Documentation Section is essential for any organisation. Addition of books, journals and documents and their proper circulation and information dissemination help in upgrading the knowledge of readers.

Library and documentation service embraces all the activities of traditional library activities. The library is the basic essential tool as well as the source for the documentation and information services.

AFCEP has a small library and documentation section. However, it needs to be strengthened and organised on scientific lines. Moreover, the number of technical books, journals and documents coming into the library should be extended to meet the increasing needs of the staff and members of the Federation.

The first step in planning of a modern Library and Documentation Section is to identify the agencies to be served by it. The clientele of AFCFP is primarily the fertiliser industry personnel (engineers, technologists, agronomists, marketers, etc.). Hence the subjects to be covered are fertiliser technology (processes and products, plants and equipment), use (agronomy and soil science, etc.), marketing, management and raw material. The subject orientation of the collection of the library will be the entire gamut of fertiliser production, technology, use, marketing and raw material and its peripherial areas (viz. economics, statistics, etc.).

#### a) <u>Library</u>

#### 1) Physical Planning and Organisation

Library surroundings must be congeneal and comfortable so as to attract readers to make use of its facilities. Books and journals must be \_> arranged as to be easily identifiable and accessible. This is unfortunately not true of the current facilities in the Federation.

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The present space allotted to the library is not sufficient to organise the Library in a proper manner. It is, therefore, recommended that sufficient space may be allotted to facilitate proper arrangement of stacks, racks, reading tables for the library and documentation activities with its pertinent furniture and fittings. When planning and determining the requirements, due cognisance must be taken of the future needs arising from the anticipated increased activities.

At the same time, it is suggested that there should be a continuous review of the material in the library and periodically all unwanted material or literature which is out of date must be weeded out. This will keep the place manageable.

#### 2) Resource Building

At present, there are about 1,200 books in the library. The collection has to be strengthened. Systematic continuous acquisition is necessary of primary literature, viz. core books on fertilisers in general, text books, monographs, annual reviews; proceedings of conferences, symposia, seminars; reference books like subject encyclopaedia, handbooks, guides, manuals, dictionaries (subject & language); patents, specifications, standards, trade literature, etc.

Periodicals constitute the most important area of any library resource today. Currently, 25 periodicals are received in the library. This is not enough to cover the modern fertiliser industry. The strength of the periodicals should be suitably augmented to cover the core subjects and their allied areas by subscribing to or acquiring on a reciprocal basis other essential relevant journals. Steps may also be taken to acquire backfiles of some important titles upto a limited period (10 years or so) that will unquestionably be needed. As these may not be readily available in the market, their acquisition may require extra efforts. 1

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Many old backfiles of important periodicals are available in microfilms, microfiche, etc. and not in regular print copies and their acquisition may also be considered.

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In microdocuments, secondary periodicals like Chemical Abstracts, Engineering Index, TVA Fertiliser Abstracts, Soils & Fertilisers, etc. are important not only for current awareness service but also for retrospective search. These may also be procured. After ascertaining the needs of the clientele procurement of non-documentary sources of information (e.g. Chemical Abstracts Condensate in magnetic tape) may also be considered. The backfiles of some important secondary periodicals may be procured for a limited period.

Suitable budget provisions have to be made for additions to the library every year.

#### b) Documentation

There is an explosion of knowledge and literature worldwide. No technocrat or even a single manufacturer can keep trace of it. This is where an industry association like the AFCFP has to play the role of an information centre which the industry members can approach for authentic information. And the association must be equipped to provide it at short notice. This can only be done if all the information received in the library in the form of books, journals, etc. is properly indexed and documented to facilitate quick retrieval. This is the key role of the documentation centre.

The Documentation Officer, in addition to supervising the library, should also cover this area of activity. Leaving the main functions of the library routine to the librarian, the microdocuments (e.g. periodical literature, reports, proceedings of symposia, trade literature, preprints, company literature, standards, patents, etc.) should be classified, indexed and arranged properly. The relevant information has to be culled out and disseminated periodically to the internal staff and to clientele of member organisations through current awareness service (abstract service) or on demand. The processing, storage and retrieval of information from the microdocuments is the main area of his activity. In the beginning, it may be started wanually, but keeping an eye on mechanisation at a later stage as circumstances warrant, systems like SDI or any computerised information system may be considered according to the needs.

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#### III.D. TRAINING COMPONENT

The main asset of an Industry Association is its manpower. The success of the Association will be determined largely by the quality and competence of its employees. It is axiomatic that the right type of people be selected for each job for various Departments etc. of AFCFP, Thereafter, training (both initial and refresher) will be necessary so that they can continue to be specialists in their respective fields and be accepted as such by the Federation constituents. Departments to be involved in this programme are : Technical & Training, Publications & Public Relations, Marketing, Economics & Statistics and Library & Documentation. Their training should take two forms, i.e., on the job and specialist. For the latter, it is suggested that the selected staff may be sent to sister organisations like the Fertiliser Association of India for a short duration to see how another successful organisation is carrying out the job and discharging functions that devolve upon it. Selected employees could also be associated with various FAI activities such as training programmes, group meetings, workshops, seminars, advisory committee meetings, etc.

This will be a continuing activity and should cover arrangements for 5 years.

Expenditure connected with this training may be met from AFCFP Budget or any other financing that the Federation can arrange e.g. UNDP.

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## III. E. CONSULTANCY COMPONENT

It is also recommended that relevant departmental experts from the FAI in various fields of specialisation visit AFCFP headquarters on short term consultancy assignments of say about one to two weeks at a time to study the progress made in implementing the various recommendations and modifying/improving them in the light of fresh developments.

Duration of this component should also be for 5 years.

Expenditure connected with this component may be met from AFCFP's resources or such other sources like UNDP that the Federation may be able to arrange.

### III. F. FOLLOW UP MEETING

It is also suggested that it will be useful to organise once in a year a follow up meeting at the Federation's office in Kuwait of representatives of UNDP, UNIDO, AFCFP and the Project Director (See IV 2a) to evaluate the progress of the programme item by item. This meeting has to be properly planned well in advance to be really fruitful. The agenda accompanied by background papers regarding the progress of various activities should be circulated before hand so that everyone can study these papers carefully and come prepared to offer constructive suggestions. At this meeting, future programme can also be discussed in the light of the experience gained.

Expenditure on this item will be met from AFCFP funds or any other source like UNDP that Federation can arrange.

#### IV. INPUTS

The inputs of the programme consist of two components - normal and project input.

Normal expenses should be borne by AFCFP as a part of its budget. It is suggested that the expenses connected with the start up of the project in terms of cost of publications, essential equipment, other costs directly linked with the project, getting it going and keeping it running for about 5 years till it is fully established may be provided in the form of a project cost. Its funding may have to be arranged separately, through U.N.D.P. for example.

It is of course understood that at the end of the project period the Federation will have to bear all these costs in addition to its normal costs.

#### 1. AFCFP Input

AFCPF input is composed of salary for additional staff to be appointed during the five year period depending on the need, cost of collection of data, preparation and distribution of publications and cost of adding books, journals and documents to the library. The estimated costs of these items are:

- 1) Additional staff : US \$ 1,835,000 (for 5 years)
- 2) Cost of distribution
   of publications : US \$ 94,000
- 3) Adding books, journals and documents to library : US \$ 50,000 (for 5 years)

Total estimated cost of AFCFP input is US \$ 1,979,000. A detailed budget estimate for the above item is worked out and attached as appendix. No provision has been made in it for escalation due to inflation, etc. A suitable inflation factor may be applied. (For budget proposals regarding additional staff, cost of distribution of publications and additions to library see Appendix III & IV).

#### 2. <u>Project Input</u>

This component is composed of the cost of publications during the period of the project, acquiring essential equipment and expenses on staff to be appointed to supervise the execution of the Project. The budget estimates of the cost of printing of publications proposed and equipment required for executing the project is given on pages 59 and 60.

#### a) <u>Project Personnel</u>

#### Project Director

The federation is taking up an ambitious task in a field which is in many ways new for it. It is essential that the project is implemented in a proper manner and within the time frame recommended.

For the successful execution of the project, it is strongly recommended that a separate senior executive termed as Project Director be appointed for a period of 5 years. He will report to the Secretary-General and be directly responsible for the implementation of all phases of the project. Of course, he will have to have a close working relationship with all Departments of the Federation.

The Project Director should be a dynamic person with a thorough technical knowledge and long administrative experience in the field of information dissemination. He will be overall incharge of the project and will be responsible for the successful implementation of the programme as per an agreed time schedule.

It will be a part of his job during his tenure to assist the AFCFP to select and recruit the right type of employees for various jobs, over see their training and ensure that the various recommendations made in this project report are implemented as expeditiously as possible.

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Amongst other things, the Project Director will be expected to travel in the Arab countries to organise seminars-cum-exhibitions and to establish focal points in each country for the collection of data and also contact specialists in various fields to get articles for AFCFP publications.

#### Secretary

The Project Director will need a whole time Secretary to assist him in his day to day activities.

#### b) Printing and production cost of publications

The cost of printing and production of various publications proposed in the project is estimated as US \$ 636,000. Provision has to be made for escalation of the cost every year due to inflation which has not been provided for in the budget. Budget proposals are given in Appendix V.

#### c) <u>Equipment component</u>

The cost of acquiring equipment required to facilitate the implementation of the project is estimated as US \$ 57,770. Budget proposals are given in Appendix VI.

No provision has been made in it for escalations due to inflation etc. A suitable inflation factor may be applied.

Budget estimates for the above two items are US \$ 693,770 .

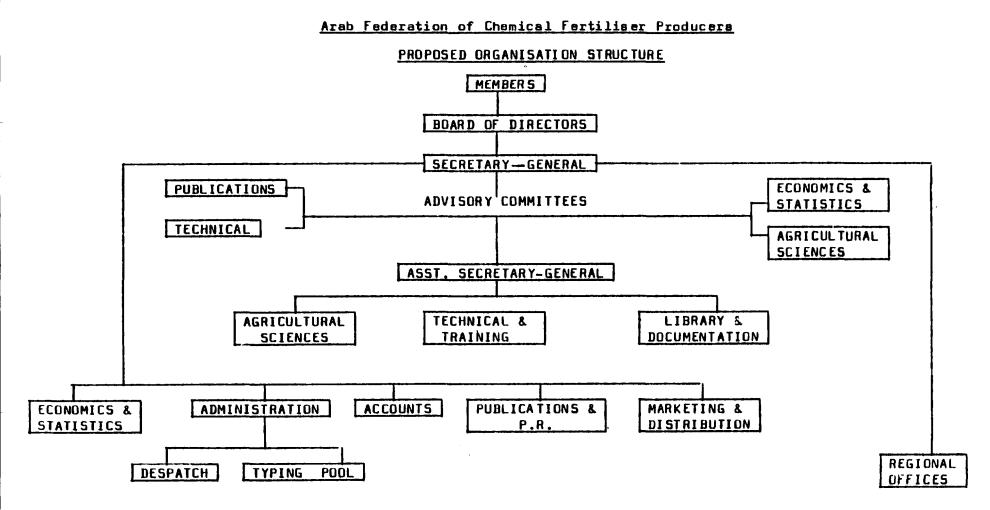
In the terms of reference of this study indication is given of UNDP input for the project. At the same time it is felt that to undertake such an ambitious but worthwhile project some project aid from outside the Federation will be necessary. It is, therefore, strongly recommended as mentioned earlier that UNDP or some other UN Agency may be persuaded to finance a substantial part of the project, if not the whole lot in the first 5 year phase. There is no doubt that the success of the project will create the right impact and climate whereby the Federation can take up its continuance thereafter from its own resources.

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#### Acknowledgements

The Fertiliser Association of India would like to thank UNIDD for being given this opportunity to share their experience with a sister industry association. We are grateful to the AFCFP and its senior staff, more particularly Mr. Al-Maayouf and Dr. Abu-Khader, for the courtesy and cooperation extended to T.M. Alexander during his visit and stay in Kuwait.

FAI expresses its appreciation to Alexander for conducting the study and its other members of the staff who contributed towards its completion with their useful ideas and other inputs.



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APPENDIX I

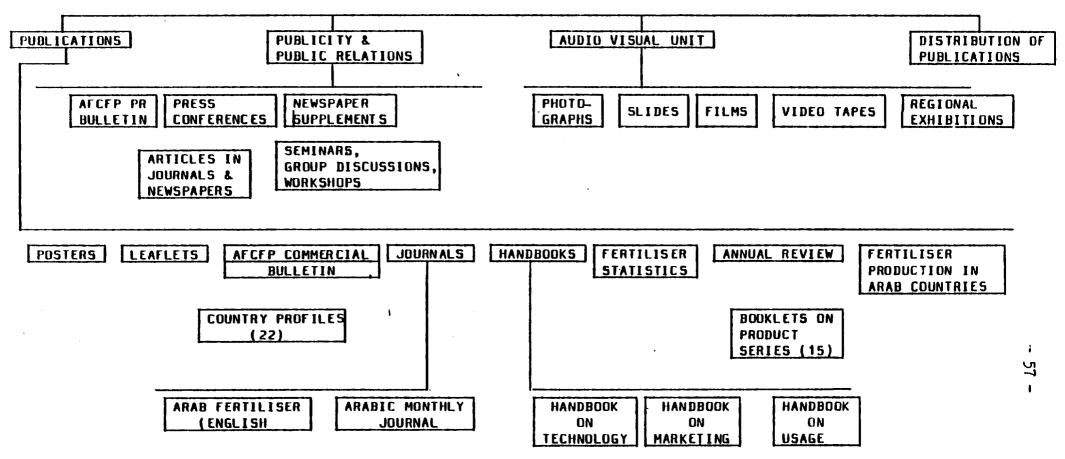
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#### APPENDIX 11

#### PUBLICATIONS AND PUBLIC RELATIONS DEPARTMENT

(Its main functions)



#### APPENDIX III

#### AFCFP INPUT

### Estimated Project Budget - Cost of Additional Staff (5 years)

## Project No. DP/RAB/80/010

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Title : Promotion of Industrial Awareness and Information Dissemination in the Field of Chemical Fertiliser Industries in Arab States

Dep	partment		Staff Required	Salary for 1 year in US \$	Salary for 5 year: in US <b>\$</b>
۸.	Publications &	1.	Head of the Department	30,000	150,000
	Public Relations Dept.	2.	Asstt. Editor	20,000	100,000
		з.	Artist-cum-photographer	14,000	70,000
		4.	Technical Assistant )(Including	10,000	50,000
		5.	Technical Assistant ) proof reading	g) 10,000	50,000
		6.	Editor (Arabic)	25,000	125,000
B,	Documentation & Library	1.	Documentation Officer	25,000	125,000
	Section	2.	Librarian (Existing)	-	-
C.	Economics & Statistics	1.	Head of the Dept. (Existing)	-	-
	Dept.	2.	Statistician	20,000	100,000
		з.	Statistical Officer	14,000	70,000
D.	Marketing & Distribution Dept.	1.	Head of the Dept.	30,000	150,000
Ε.	Technical & Training Dept.	1.	Head of the Deptt. (Existing)	-	-
		2.	Technical Officer	20,000	100,000
		З.	Training Officer	20,000	100,000
F.	Agricultural Sciences	1.	Head of the Dept.	30,000	150,000
	Dept.	2.	Agranomist	20,000	100,000
6.	Secretariat Dept.	1.	Office Manager	24,000	120,000
Н.	Accounts Dept.	1. 2.	Head of the Dept. (Existing) Accountant	- 20,000	100,000
ι.	Typing Pool	1.	Two Stenographers	35,000 (for 2)	175,000
J.	Despatch Section	1.	Clerk (Existing)	-	-
				Total US \$	1,835,000

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## APPENDIX IV

## AFCFP INPUT

## Estimated Distribution Cost of Various Publications - Packing and Postage

Name of	publication	Frequency	No. of pages	No. of copies	Period - vears	Cost in US
1. Arab	o Fertilisers	Monthly	40	3000	2	30,000
2. Arab	9 Monthly	Monthly	30	2000	2	5,000
3. AFCF	P Fertiliser					
Stat	tistics	Annual	200	2000	2	5,000
4. AFCF	P Annual Review	Annual	100	2000	2	4,000
	atry profiles, books, alets, etc.			-	5	50,000
LIBRARY						
Books, J	lournals, etc.				5	50,000
					Total US \$	144,000

Note : Costs are based on estimates provided by the A.F.C.F.P.

N

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#### APPENDIX V

#### Estimated cost of printing and production of various publications

## Project No. DP/RAB/80/010

Title : Promotion of Industrial Awareness and Information Dissemination in the field of Chemical Fertiliser Industries in Arab States

Period for advisory se are 'require (year	ervices Estimated
2	100,000 *
5	10,000
2	200,000
2	50,000
intry 5	87,500
5	120,000
2	15,000
2	10,000
2	7,500
5	36,000 \$ 636,000
	Total US

\* (including cost of experts)

Note: Cost astimates are based on the figures supplied by AFCFP.

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## APPENDIX VI

	Cost of Equipment Required	<u>US </u> \$
1.	Camera with accessories	760
2.	Tape <u>Recorder with accessories</u>	350
з.	Slide Projector with accessories	400
4.	Overhead Projector with screen and accessories	500
5.	Addressograph Machine in English & Arabic with accessories	20,000
6.	Electric Stepler & Electric Punching Machine	160
7.	Franking Machine	3,600
8.	Card System & Equipment for storing data collected	1,000
9.	Microfilm reader	250
10.	Microfilm reader printer	8,750
	Total :	57,770

Note: Cost estimates are based on the figures supplied by AFCFP.

## APPENDIX VII

## PROFORMA I

## MONTHLY STOCKS, PRODUCTION AND DESPATCH STATISTICS

1. Name of the Factory :

2. Location 

3. Report for the month of .....

# TO REACH FAI LATEST BY 10TH OF THE FOLLOWING MONTH

(	tonnes	}

1 62 L

Item	F	ERT	ILI	SER	MAT	ERIA	LS			TOTAL	
ŢĊĊW							1		N	P205	к <sub>2</sub> 0
I. PRODUCTION							_12				
1.Opening stock ) at plant as on ) (bulk ( packed) 2.Froduction during the month								•			
3.Despatches during the month					*						
4. Closing stock) at plant											
(bulk & packed)											
II. REASONS FOR LOW PRODUCTION, IF	ANY								(Please pr	it mark agai	inst reasons

No.of days plant remained closed :

A Dia to an and state down

B) Due to other reasons :

applicable)

1) Mechanical trouble

ii) labour trouble

iii) raw materials! shortage

a) rock

7

=

b) sulphur

- c) gypsum
- d) limestons
- e) any other

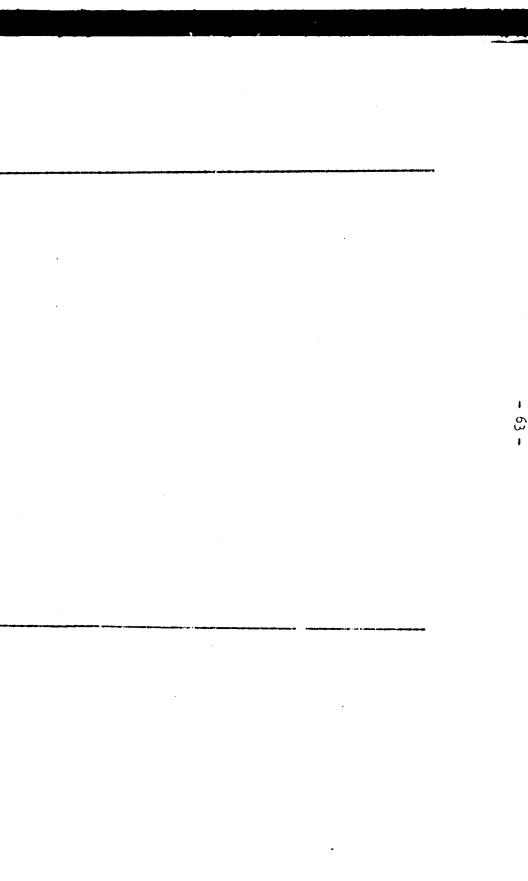
iv) Utilitios' shortage

- a) powor
- b) water
- c) fuel, otc.

v) Transport difficultics

(wagon shortage) on movement (a) raw materials from source

- to factory;
- (b) finished goods from factory to market.
- vi) Markoting problems



	Name of the Fa Location	actory :					TO REACH F BY 10TH OF FOLLOWING	THE
I. STATENISE DE	SPATCHES FROM	PLANT					(tonnes)	
			FERTI	LISERS			ΤΟΤΑ	L
STATB	 			1		N	P205	к <sub>2</sub> 0
		<u></u>						
II. PPODUCT PRICE	<u>S(As and when</u>	there is a	prics revis	sion)		 		
II. <u>PPODUCT PRICE</u> Fertiliser	 Max	cimum selli:	ng price ex		·)			
	 Max	cimum selli:	ng price ex	clusive of	·)			
	 Max	timum sellin les and othe	ng price ex	clusive of	<u>.</u>			
	 Max	timum sellin les and othe	ng price ex	clusive of	·)			

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Statewise despatches/releases from the field warehouses during the month of ...... TO REACH FAI LATEST 1. Name of the Factory : BY 15TH OF THE 2. Vacation 8 FOLLOWING MONTH (tonnes) STATES Nutrient Total Item 1. Opening stock at the field N warehouses Р<sub>2</sub>0 К<sub>2</sub>0 2. Receipts by the warehouses from the plant during the month N P205 K<sub>2</sub>0 3. Despatches/releases from the N warohouses during the month P205 K<sub>2</sub>0 Closing stock at the field 4. Warohousos. N P<sub>2</sub>0<sub>5</sub> K\_0

1 65

ł.

PROFORMA III ·

## PROFORMA IV

## Channelut of and materialwise distribution during the month of ......

1. Name of the factory :

2. Location

TO REACH FAI LATEST BY SOTH OF THE FOLLOWING MON TH

- 66 -

A) Clannelwise distribution pattern from Plant and field warehouses (N,  $P_2O_5 \& K_{\Omega}$ ):

1

						(Per ce	ont)
			S	TATES			
Item	Nutrient		-		1		Total
. Private Trade	N						
	P202						
·	ĸ						
Institutional							
agercies	N						
	P205						
	к <sub>2</sub> о					····	
Total	N	100%	100%	100%	100%	100%	100%
	P205	100%	100%	100%	100%	100%	1.00%
	ĸ <sub>2</sub> o	100%	100%	100%	100%	100%	100%

## Proforme IV

\$

## B) <u>Mode of distribution fine plant and field warehouses</u> : (all fertiliser materials are to be added as such)

<u>Ex-p]eni</u>	Ex-field warehouses	Total
100%	100%	1.00%
	100%	100% 100%

\* Vertical share under each category is to be worked out on total tonnage of fortiliser materials despatches and added as such.

1 0

NITROGENOUS FEATILISERS TONNES APPENDIX VIII UREA AMMONIUM SULPHATE CLOSING STOCK F.S. U.S. TOTAL CLOSING STOCK NAME OF FACTORY PRODUCTION DESPATCHES NAME OF FACTORY PRODUCTION DESPATCHES E. S. U. S. TOTAL S.C.I. KOTA H.S.L. BHILAI I.E.L. PANKI F.C.I. NAMRUP ----F.C.I. U.P B.S.L. BOKARO F.C.L NAMBUP F.C.I. SINDRI F.C.I. SINDRI T.I.S.C.D. JAMSHEDPUR ----F.C.I. DURGAPUR M.S.L. ROURKELA M.S.L. DURGAPUR C.L.F. VIZAG F.A.C.T. KERALA H.S.C.O. BURNPUR KULTI M.F.L. MANALI E.I.D. ENNORE N.L.C. NEYVELI F.A.C.T. KERALA S.P.I.C. TAMILNADU G.S.F.C. BARODA M.C.F. MANGALORE Z.A.C.L. GOA ŧ G C BARODA 8 I.F.F.C.O. KALOL 1 F.C.I. TROMBAY CALCIUM AMMONIUM NITRATE H.S.L. ORISSA . . . . F.C.I. NANGAL MMONIUM SULPHATE NITRATE S U ARY OF PRODUCTION ETC., OF N FERTILISERS UREA AM. SULPHATE AMMONIUM CHLORIDE ACL CAN F.A.C.T. N.C.T.M. VARANASI ASN TOTAL N TOTAL 'N' PRODUCTION DESPATCHES AND STOCK FOR THE MONTH OF . .

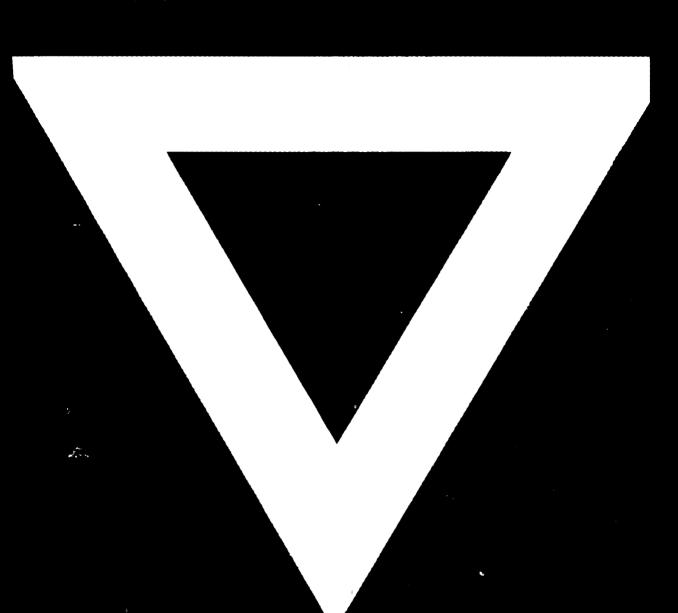
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