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REPORT OF THE WORKING GROUP ON REGIONAL COOPERATION
BETWEEN DEVELOPING COUNTRIES IN THE
FERTILIZER INDUSTRY

presented by

Chairman: E. Cutiérrez Salgado

Id. 78-8039

INTRODUCTION

1. The Working Group on Regional Co-operation between developing countries in the fertilizer industry was established by the Consultation Meeting on 7 November under the Chairmanship of Mr. Eduardo Gutierrez Salgado (ADIFAL).
2. The Terms of Reference given to the Group were:
 - (a) To develop specific proposals for co-operation among developing countries in the fertilizer industry;
 - (b) To suggest how UNIDO might support such co-operation.
3. The Working Group convened three sessions on 8 and 9 November 1978.
4. The Working Group considered as relevant documents:
 - ID/EG.281/13 (paragraphs
 - ID/WG.281/4
 - ID/WG.281/9
 - UNIDO/IOD/220
 - ID/WG.281/CRP.7
5. The report of the Working Group is prepared in four parts: The Background; the Role of UNIDO in strengthening co-operation between developing countries; Recommended Programme for immediate action; and Establishment of an Ad Hoc Committee on Fertilizers for Co-operation between developing countries.

Background to co-operation

6. In general the fertilizer industry in developing countries has been characterized by a number of features: low utilization of plant capacities, high cost of production, shortage of experienced manpower, weak operational and maintenance management, etc. Some of these problems can be attributed to inadequate planning and implementation but they are mainly due to lack of experience in this highly sophisticated sector.
7. While a number of fertilizer plants have been erected in developing countries, consumption still exceeds production even though it is at a much lower level than in developed countries. In 1974, developing countries produced the equivalent of 65 percent of their requirements; the balance was met by imports totalling 6.4 million tons of N-P-K nutrients; in 1976, the imports of developing countries increased to 7.5 million tons.
8. During the past 25 years, most developing countries with the relevant natural resources have embarked on a programme to develop their own fertilizer industry with the hope of promoting further consumption within their own borders and exporting the balance of their production. Others, with limited potential for establishing their own industry rely on imports and in most cases having limited financial means to satisfy their needs.
9. Quite a few developing countries possess vast raw material resources and in certain cases adequate financial resources to support the development of the fertilizer industry. Some of them lack markets; but it should be possible to utilize these resources by setting up an economic-size plant to serve the market of the region .
10. A number of developing countries have gained good experience in certain areas of the fertilizer industry. Nevertheless, the majority of those producing countries rely heavily on the developed countries' market for almost all components and inputs needed to build and operate their plants, i.e. design, equipment, special technologies and materials (catalyst), etc. In some cases even management has been entrusted to outside firms with minimum efforts for the development of the developing country's national capabilities.

11. The Working Group noted that, because of their similar level of development, the developing countries ought to be in a good position to confer and exchange experience and expertise. A mechanism of co-ordination among developing countries is foreseen to cover the exchange of views on handling specific problems regarding planning and formulation of new projects, contracting for procurement and construction, commissioning and troubleshooting, maintenance and product distribution, management, etc.
12. The Working Group felt that technical assistance might be an important form of co-operation among developing countries, not only in any of the above areas, but also for training purposes at all levels.
13. While sharing of experience and other limited resources is an important component of co-operation among developing countries, the collective approach to any of the problems faced by these countries in developing their fertilizer industry could help them in obtaining improved facilities such as better information resources, improved training programmes, more detailed technical seminars, etc.
14. The Working Group expects UNIDO to play a catalytic role and to be an effective tool in co-ordinating the initiatives of the developing countries in the ways suggested in the following sections of this report.

The role of UNIDO in strengthening co-operation between developing countries

15. The Working Group recommended that in order to strengthen co-operation between developing countries in all matters relating to the fertilizer industry, UNIDO should, as a first step, assist in the establishment of close co-operation between existing sub-regional, regional and interregional associations or federations of fertilizer enterprises and fertilizer industry development centres concerned with the development of the industry in the developing countries.

16. It is suggested that UNIDO should assist and support the establishment of regional fertilizer industry research and development centres, federations or associations of fertilizer enterprises in regions where they did not exist.

17. To further these objectives, UNIDO was requested:

- (a) To prepare, publish and widely disseminate an information booklet containing a brief account of, and statistical data relating to the activities of:
 - (i) All sub-regional, regional and interregional federations, associations, and fertilizer industry development centres established in the developing countries;
 - (ii) All international organizations, institutions, agencies and fertilizer development centres concerned with the fertilizer industry including those in developing countries interested in providing consultancy services;
- (b) To help to organize periodically interregional meetings of representatives from sub-regional, regional and interregional federations, associations and fertilizer industry development centres to review current activities and propose new activities and projects of co-operation;
- (c) To organize workshops on different aspects of technical management of fertilizer plants in which the experience of fertilizer plants in different countries could be exchanged;
- (d) To initiate action for organization of training programmes for fertilizer personnel from developing countries making full use of the existing training facilities in developing countries. The training should cover areas such as project implementation, operation, technical management and maintenance of fertilizer plants;
- (e) To assist regional organizations to establish a maintenance improvement programme that would improve capacity utilization

in fertilizer plants in developing countries. The programmes should include preparation of improved maintenance manuals, introduction of new techniques of maintenance such as preventive maintenance through non-destructive testing instruments, management of spare parts, etc. The experience of developing countries having fertilizer plants should be drawn upon in preparing the programme;

- (f) To organize visits of fertilizer personnel of developing countries to the plants of other developing countries with more experience in the fertilizer sector;
- (g) To examine the possibility of establishing a regional pool of common spares for fertilizer plants at the sub-regional or regional level;
- (h) To stimulate an exchange of technical information between regions by inviting the co-operation of sub-regional, regional and interregional federations, associations and development centres;
- (i) To assist the development of new fertilizer projects in developing countries based on raw materials and market potential of the region. Assistance might be given in investigating such technical aspects as quantity and quality of raw materials (e.g. phosphate rock and potash) and in carrying out a techno-economic study of the project including market and transport;
- (j) In collaboration with UNCTAD and FAO, to encourage production and consumption of fertilizer products and promote interregional trade in raw materials, intermediates and finished fertilizer products;

RECOMMENDED PROGRAMME FOR IMMEDIATE ACTION

18. UNIDO should assist in organizing in 1979 a technical seminar in a developing country inviting fertilizer producers and contractors to discuss fertilizer technology for ammonia and urea, and NPK granulation plants.

19. UNIDO should assist, upon request, in arranging an annual interregional meeting starting in 1979 for regional associations, federations and regional groups, and fertilizer industry development centres to coordinate their approaches. Each group is to report on its own activities and on the fertilizer supply and demand situation in their regions, plans for new plants to be built. A number of technical subjects of common interest could be considered.

20. UNIDO should start promoting the formation of regional groups in areas, such as Africa, where such groups do not presently exist. Specifically, UNIDO should render support to the establishment of a Fertilizer Development Centre in Africa as requested by the African delegations at the Second Consultation Meeting on the Fertilizer Industry.

21. It is suggested that UNIDO prepare a progress report for consideration at the next Consultation Meeting, on the above recommended 1979 Action Programme for Co-operation among developing countries.

**ESTABLISHMENT OF AN AD HOC COMMITTEE ON FERTILIZERS
FOR CO-OPERATION BETWEEN DEVELOPING COUNTRIES**

22. The Working Group suggested that UNIDO should establish an ad hoc committee on fertilizers with the following terms of reference:

- (a) To co-ordinate the implementation of the programme recommended by the Working Group;
- (b) To study in depth additional areas for co-operation between developing countries, not covered by the present report and to recommend action.

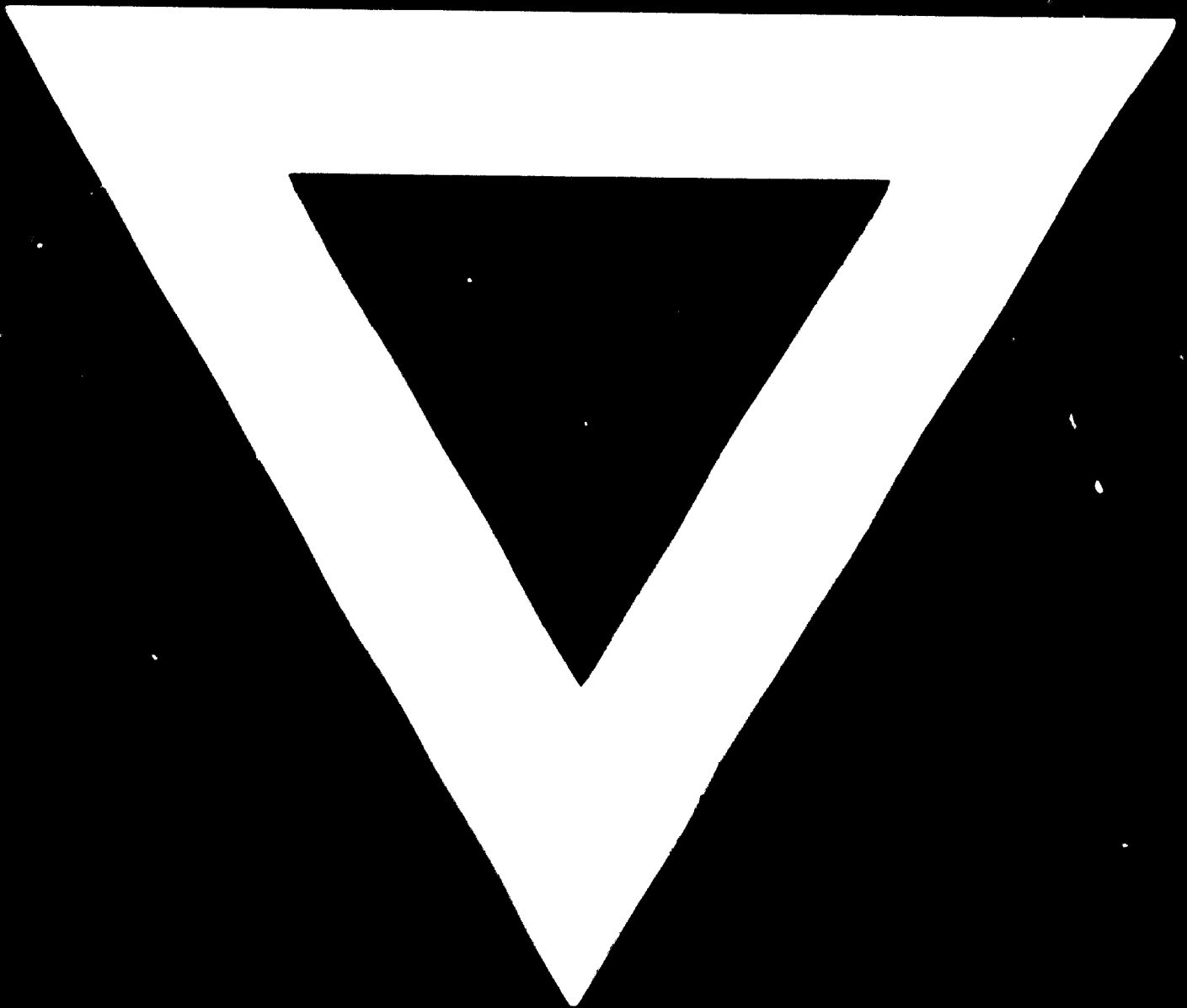
23. The ad hoc committee would initially be composed of the following members: Regional and interregional associations, federations and fertilizer industry development centres. The membership might be increased later if necessary.^{1/}

24. The committee should meet annually.

25. The committee should make a report of its activities to the Third Consultation Meeting on the Fertilizer Industry.

^{1/} Several delegations were of the opinion that the membership of the ad hoc committee should include participants from interested Governments/Governmental institutions and/or organizations. A few other delegations felt that while they were not opposed to Governmental participation, they could not accept the explicit mention of Governments in this connexion.

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