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Second Consultation Meeting
on the Fertilizer Industry

Innsbruck, Austria
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**REPORT OF WORKING GROUP ON INFRASTRUCTURE FOR THE PRODUCTION
AND DISTRIBUTION OF FERTILIZERS**

presented by

Chairman: J. T. Shields

id.78-8030

INTRODUCTION

On Wednesday, 8 November 1978, the Working Group on Infrastructure, under the chairmanship of J. T. Shields, examined agenda item 5(b), as adopted by the Consultation Meeting: Guidelines on the demarcation of responsibility for establishing and financing the infrastructure needed for the production and distribution of fertilizers, and arrangements, terms and conditions for financing such infrastructure.

The Working Group commended the UNIDO secretariat for the quality of the background documents^{1/} and for having provided them in good time.

The guidelines were prepared in response to recommendations by the First Consultation Meeting on the Fertilizer Industry. They covered four points:

- (a) Identification of the different items of infrastructure required for the production and distribution of fertilizers and their estimated investment costs;
- (b) Demarcation of responsibility for establishing and financing such infrastructure;
- (c) Arrangements and terms and conditions appropriate for financing such infrastructure investments;
- (d) Guidelines on which agreement might be reached at the Second Consultation Meeting.

The Working Group considered the guidelines proposed by UNIDO and, after discussion and modification, agreed to the following text concerning recommendations on which agreement might be reached at the Second Consultation Meeting.

^{1/} ID/WG.281/5, ID/WG.281/8, ID/WG.281/13, ID/WG.281/CRP.5.

GUIDELINES ON THE DEMARCATION OF RESPONSIBILITY FOR ESTABLISHING
AND FINANCING THE INFRASTRUCTURE REQUIRED FOR THE PRODUCTION
AND DISTRIBUTION OF FERTILIZERS IN DEVELOPING COUNTRIES

The Second Consultation Meeting on the Fertilizer Industry recognized that:

Self-sufficiency in food production is the most urgent policy objective of the Government in developing countries;

To increase food production, the price paid by farmers for fertilizers needs to be kept as low as possible; in many developing countries, it needs to be reduced by subsidies contributed by the Government;

The investment required to establish a fertilizer plant often needs to be supplemented by an equally large additional investment in the infrastructure required for the production and distribution of fertilizers;

If a major part of the additional investment required for establishing such infrastructure is financed by the fertilizer enterprise instead of the public exchequer, then the cost of supplying fertilizers to the farmers will be considerably increased to the detriment of the over-all goal of increased food production.

The Second Consultation Meeting therefore recommends the following guidelines on the demarcation of responsibility for establishing and financing the infrastructure required for the production and distribution of fertilizers in developing countries.

1. When a fertilizer plant is established in a developing country, the authorities responsible for the project should plan the development of the infrastructure required for the production and distribution of fertilizer at the same time. Detailed estimates of the investment costs should be made and financing arrangements should be made to cover all of the investment required for infrastructure facilities as well as that in the plant itself.
2. In order to arrange financing for the overall fertilizer project including such infrastructure, it will be necessary for the State and other public authorities on the one hand and the fertilizer enterprise itself on the other hand to agree at the outset on a demarcation of responsibility for establishing and financing each item of infrastructure.

3. To establish their respective responsibilities, the sponsors of the fertilizer project and the State and other public authorities should discuss all of the items of infrastructure listed in Table 1 so that a clear demarcation of responsibilities can be agreed by all the parties concerned.
4. As a general rule, the fertilizer enterprise should be made responsible for the infrastructure facilities associated with production that are commonly termed "on-site" facilities; in addition the fertilizer enterprise may be made responsible for certain "off-site" facilities when the public authorities can show that the fertilizer enterprise is the principal user of such facilities.
5. The State or other Public Authorities should be made responsible for all other "off-site" facilities and all the infrastructure facilities which support the establishment of a fertilizer plant such as port, road, railway, power supplies, water supply.
6. The State and the public authorities should be responsible for the development of human and social infrastructure; including facilities for man-power development, basic education, housing, health and townships, etc. The plant authorities should be responsible for pollution control, for the safety of the workers within the plant, in-plant training, and organizational developments.
7. The fertilizer enterprise should be responsible for the raw materials infrastructure unless there are other users that benefit from its establishment; in this case, the cost of establishment should be shared or be borne entirely, by the Government, or other enterprises benefiting from it, or other public authorities.
8. Whenever possible, public authorities or warehousing agencies should provide central and district storage depots for the storage of fertilizers. If this were not possible, and the fertilizer project was the only beneficiary from such facilities, then the project should be made responsible for establishing such facilities.

9. Local authorities in rural areas should be encouraged to establish depots at the community level since these will handle not only fertilizers but other agricultural inputs and the farmers' produce. Similarly, transport from the district depots to the local rural depots should be arranged by farmers co-operatives or other local organizations, since the produce of farmers may be carried on the return journey.

The Second Consultation Meeting recommends the following guidelines on the financing of infrastructure required for the production and distribution of fertilizers:

- (a) Infrastructure required for the production of fertilizers should be established and financed by the Government or other public authorities to the greatest extent possible. Where external finance is sought for this, it should be provided on soft terms wherever possible;
- (b) In the event that the enterprise itself assumes responsibility for establishing part of the infrastructure required for production, the items of infrastructure required should be considered as a separate project that warrants financing on soft terms and on terms and conditions at least as favourable as those offered for agricultural projects and other infrastructure projects, as is done already by some organizations.
- (c) Infrastructure for the distribution of fertilizers, whether it is the responsibility of the fertilizer enterprise or the Government and other public authorities, should be financed on the most favourable terms and conditions possible, and in any event on terms and conditions at least as favourable as those offered for other types of agricultural project.

The Second Consultation Meeting requests the UNIDO secretariat to bring the above set of guidelines to the attention of Governments and through them to other public authorities and national financing institutions. The Consultation Meeting further requests the UNIDO secretariat to disseminate these guidelines to the Governments of aid-giving countries and to regional and international financial institutions and requests them to do all in their powers to implement the guidelines.

TABLE 1

ITEMS OF INFRASTRUCTURE REQUIRED FOR THE PRODUCTION AND DISTRIBUTION OF FERTILIZERS

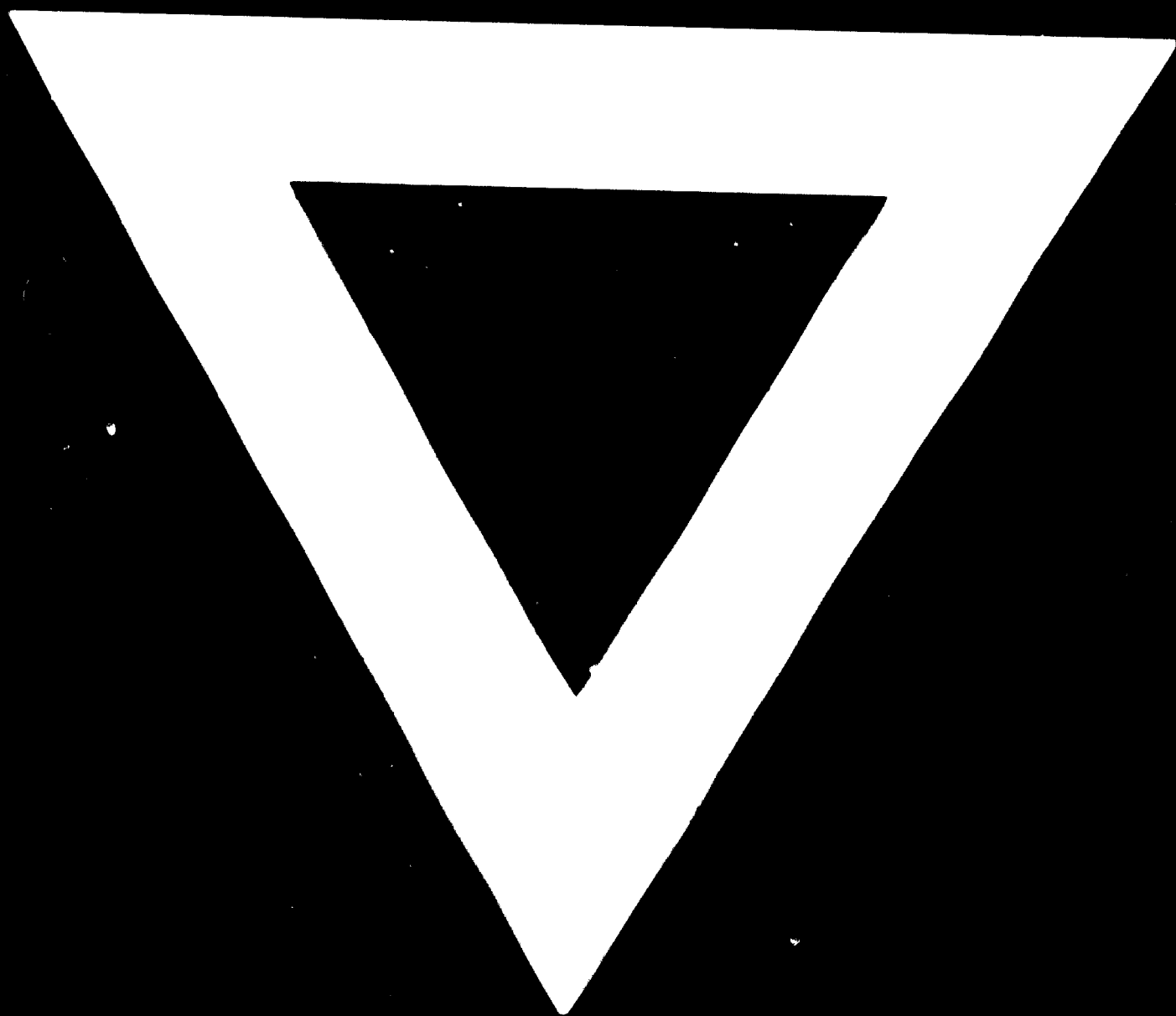
INFRASTRUCTURE REQUIRED FOR THE PRODUCTION OF FERTILIZERS

1. Utilities
 - Captive power supply
 - Connection to public power supply
 - Water supply
 - Drainage and effluent disposal system
 - Site for fertilizer plant
 - Communications system
2. Workshop facilities for heavy maintenance
3. Transportation infrastructure
 - Roads
 - Railways including marshalling yards
 - Port and unloading/loading facilities
 - Road vehicles, railway rolling stock, ships for transporting raw materials.
4. Raw materials infrastructure
 - Treatment facilities for raw materials such as beneficiation plant for phosphate rock or gas treatment facilities.
 - Pipeline for supply of gas, fuel oil or naphtha.
 - Off-site facilities for handling and storing raw materials and bags.
5. Human infrastructure
 - Basic education facilities
 - In-plant and on-the-job training
 - External training courses in plant operation and maintenance
 - Safety precautions
6. Social infrastructure
 - Houses
 - Schools
 - Hospital and medical facilities
 - Other public buildings and recreational facilities

INFRASTRUCTURE REQUIRED FOR THE DISTRIBUTION OF FERTILIZERS

7. Marketing infrastructure
 - Storage facilities for distribution to farmers
 - Bulk storage and handling facilities
 - Local blending plants
 - Storage facilities for fertilizer for exports
 - Road vehicles, railway rolling stock, ships for distributing fertilizers
 - Marketing distribution networks
8. Agricultural extension infrastructure such as soil testing, research and field plant demonstration, farmer training.

G - 83



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