

**ESTIMATES COMMITTEE
(1969-70)**

HUNDRED-FOURTH REPORT

(FOURTH LOK SABHA)

**MINISTRY OF PETROLEUM AND CHEMICALS
AND MINES AND METALS**

(DEPARTMENT OF CHEMICALS)

**Action taken by Government on the recommendations
contained in the Forty-ninth Report of the
Estimates Committee (Fourth Lok Sabha)
on the erstwhile Ministry of
Petroleum and Chemicals –
Fertilizers.**



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NEW DELHI**

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STUDY GROUP 'E'
(ESTIMATES COMMITTEE)
1969-70

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Shri B. B. Tewari—Deputy Secretary.

Shri Y. Sahai—Under Secretary.

INTRODUCTION

I, the Chairman of the Estimates Committee having been authorised by the Committee, present this Hundred-fourth Report of the Estimates Committee on the action taken by Government on the recommendations contained in the Forty-ninth Report of the Estimates Committee (Fourth Lok Sabha) on the erstwhile Ministry of Petroleum and Chemicals—Fertilizers.

2. The Forty-ninth Report was presented to Lok Sabha on the 11th April, 1968. Government furnished their replies indicating action taken on the recommendations contained in that Report between 2nd December, 1968 and 23rd July, 1969. The replies were examined by the Study Group 'E' of the Estimates Committee (1969-70) at their sittings held on the 16th July and 15th December, 1969. The draft Report was adopted by the Estimates Committee (1969-70) on the 22nd December, 1969.

3. The Report has been divided into the following Chapters:—

I. Report.

II. Recommendations which have been accepted by the Government.

III. Recommendations which the Committee do not desire to pursue in view of the Government's replies.

IV. Recommendations in respect of which replies of Government have not been accepted by the Committee.

4. An analysis of the action taken by Government on the recommendations contained in the 49th Report of the Estimates Committee (Fourth Lok Sabha) is given in Appendix III. It would be observed therefrom that out of 58 recommendations made in the Report, 48 recommendations i.e. 83 per cent have been accepted by Government and the Committee do not desire to pursue 5 recommendations, i.e. 8.5 per cent, in view of the replies received from the Government. The replies of the Government in respect of the remaining 5 recommendations i.e. 8.5 per cent have not been accepted by the Committee.

NEW DELHI;

M. THIRUMALA RAO,

January 29, 1970.

Magha 9, 1891 (S)

Chairman,

Estimates Committee.

CHAPTER I

REPORT

Setting up of a Central Agency

(Sl. Nos. 25 & 58, Para Nos. 4.55 and 9.11)

The Committee had, in paras 4.55 and 9.11 of their Forty-ninth Report on the Ministry of Petroleum and Chemicals—Fertilizers, noted that Government had not been able to entrust the functions of marketing and distribution of fertilizers either to a Marketing Corporation as recommended by the Fertilizer Distribution Enquiry Committee in 1960 or to a Fertilizer Promotion Corporation as recommended by the Committee on Fertilizers in 1965. The need of establishing a single marketing division to distribute the products of all manufacturing units was again emphasized by a Study Team appointed in October, 1967. While noting further that more than half a dozen Central Ministries were concerned with various aspects of fertilizers produced in the public sector and the State Governments, manufacturers and banking institutions too in the matter of promotion of fertilizer use and provision of credit facilities to farmers, the Committee had recommended the setting up of a single authority/agency to deal with different functions relating to production, distribution and import of fertilizers. In this connection, the Committee had suggested, the recommendations made by Sivaraman Committee and Study Team on Fertilizers might also be kept in view.

2. In their reply, Government have stated that functions like arrangements for the provision of foreign exchange and for shipping schedules, organisation of priority railway movements and smooth as well as timely distribution in inaccessible areas were better facilitated by a departmental agency like the Central Fertilizer Pool. Besides, Pool system would come to an end in a few years as soon as the required quantities of fertilizers were produced in the country and the imports were stopped. For these reasons, Government did not consider it necessary to set up a Corporation for the distribution of fertilizers.

3. Explaining the recommendation of the Study Team for establishing a single Marketing Division to market the products of all the public sector units, Government have stated that, "in the first stage it was envisaged that the two major public sector fertilizer organisations namely, Fertilizer Corporation of India and FACT would integrate. During the second stage it was envisaged that the marketing division of the integrated Corporation would negotiate with other public sector undertakings manufacturing fertilizer as a by-product, and take over from them marketing of by-product fertilizer on a long term basis. The proposal for integration of FCI and FACT had, however, for various reasons been deferred."

4. Government have further stated that FCI has accepted the desirability of developing a single marketing division for marketing the products of all its manufacturing units and a nucleus central organisation is in the process of being developed. It is envisaged that at an appropriate time when the central organisation is properly developed, the marketing function will be taken over from the units by the Central Marketing Division and the activities will be re-grouped for implementation at local, regional and central levels.

5. So far, FACT is concerned, Government have explained that it has already developed a good marketing net work on the lines most suited for marketing fertilizers under Indian conditions.

6. In respect of marketing of by product fertilizers produced by public sector organisations, Government have pointed out that a beginning has already been made. An understanding has been reached between FCI and Hindustan Zinc Ltd., Udaipur for FCI to progressively take over marketing of super-phosphate produced by Hindustan Zinc Ltd. Similarly discussions have been held by FCI and Hindustan Steel Ltd., to develop agreed terms for FCI progressively to take over marketing of fertilizers produced by Hindustan Steel Ltd.

7. **The Committee are not convinced with the arguments advanced by the Government against the necessity of setting up a Central Agency on fertilizers. They note that the functions assigned to the Central Fertilizer Pool do not include fertilizer promotional activities. The Committee reiterate their earlier recommendation and urge that Government should take immediate steps to establish a Central Authority/Agency to deal with all the functions relating to production, distribution, promotion and import of fertilizers with a**

view to achieve coordination, cohesion and purposiveness both in the matter of policy as well as its implementation all over the country.

Uniform Price Policy

(Sl. Nos. 32 & 33, Para Nos. 5.19 & 5.20)

8. In para 5.19, the Committee had observed that the pool prices for the sale of fertilizers had not been correctly fixed in the past. They had suggested that an Expert Committee should be set up to go into the various elements of economics of cost structure both to lay down a uniform price policy as would be advantageous both to producers as well as consumers. In para 5.20 the Committee had further recommended that the said Expert Committee should also examine the question of introducing cost planning, cost control and cost reduction techniques by installing a cost reduction cell in each organisation, both in the public and private sectors, for ensuring economic cost in all the stages of processes of production.

9. Government have stated in reply that since the decision to have fertilizer units to market their products without any restriction with respect to price and the area in which it could be marketed has come into full effect from October, 1968, it is considered desirable to watch the effect of this policy for some time and only then, in the light of experience, consider whether measures are necessary or feasible for devising a uniform pricing policy.

10. The Committee are not convinced by Government's wait and watch policy in regard to laying down an uniform price policy and would reiterate their recommendation that an Expert Committee as suggested earlier be set up to lay down a uniform price policy and also to examine the question of introducing cost planning, cost control and cost reduction techniques in each organisation both in the public as well as private sectors.

Cost of Production

(Sl. No. 35—Para No. 5.43)

11. The Committee had, in para 5.43, noted that the cost of production in the new units at Gorakhpur, Durgapur and Cochin, even with large capacities and equipped with modern technology, varied to a conspicuous degree. For instance, the cost of urea in Gorakhpur was worked out to Rs. 469.56 per tonne as against Rs. 343 in Durgapur and Rs. 420 in Cochin. The Committee hoped that the Government would go into this aspect with a view to bring down the costs to the lowest level and as near to each other as possible.

12. In their reply, Government have explained that the cost of production in Gorakhpur is higher because its capacity is only 80,000 tonnes as compared to the capacity of the Cochin and Durgapur Units which is 1,52,000 tonnes of nitrogen. Apart from the economy of scale, the units at Durgapur and Cochin use more modern equipment.

13. As regards difference in the cost of production between Cochin and Durgapur Project, Government have stated that, "it is largely due to mode of calculations adopted by the two units. In one case, interest on investment was included while in the other it was not. There is also a difference in the naphtha price for two units."

14. The Committee still feel that the difference in cost of production in these units is pretty large and would like to reiterate that Government should go into all aspects of the matter with a view to suggest suitable steps to bring down the costs to the lowest level and as near to each other as possible.

CHAPTER II

RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation (Sl. No. 1, Para 1.23)

The Committee note with satisfaction that the Sivaraman Committee on Fertilisers in their report submitted to Government on the 2nd September, 1965, has made a number of valuable suggestions on the problems facing the fertiliser industry in India, with particular reference to fertiliser consumption, pricing, distribution, marketing and sales promotion. The Report has also provided a basis for fixing targets of fertiliser consumption and production for the Fourth and Fifth Five Year Plans. The Report of the Fertilisers Committee had come at a time when the country is passing through a food crisis and the Committee hope that its recommendations will receive the earnest consideration at the hands of Government.

Reply of Government

The observations made by the Estimates Committee have been noted. Various recommendations of the Sivaraman Committee on Fertilisers have been considered in detail one by one and suitable action has been taken|is being taken. Action taken on more important recommendations of the Committee on Fertilisers is indicated below:—

1. The Committee recommended that the targets of consumption of fertiliser should be 2.4 million tonnes nitrogen, 1.0 million tonnes P_2O_5 and 0.7 million tonnes K_2O_5 in 1970-71 and 4.0 million tonnes nitrogen, 2.0 million tonnes P_2O_5 and 1.0 million tonnes K_2O_5 in 1975-76, i.e. at the end of the Fourth and Fifth Plans. The targets suggested by the Committee for 1970-71 were accepted by Government. However, the Plan years have since changed and the new Fourth Five Year Plan will now run from 1969-70 to 1973-74. For the new Fourth Plan, targets under consideration for 1973-74 are 3.73 million tonnes nitrogen, 1.74 million tonnes P_2O_5 and 1.11 million tonnes K_2O_5 which are in line with the suggestions of the Committee.

2. The Committee recommended that the planning for establishment of fertiliser factories should not be limited to the plan period

of 5 years and should be a continuous process and efforts should be made to achieve better performance by factories, as well as lowering cost of production. The suggestion has been accepted and future production is being planned on a continuous basis. A Committee of Secretaries also considers from time to time, general problems relating to raw materials and ways and means of increasing indigenous fertiliser production.

3. The Committee recommended that import programme of fertilisers should also include import of needed quantities of phosphatic fertilisers in complex and straight form. The recommendation is being followed and the Central Fertilisers Pool now imports complex fertilisers like diammonium phosphate, ammonium phosphate, N-P-K fertilisers etc. to meet the gap between the requirements and indigenous production of phosphatic fertilisers. Import of fertilisers is accorded a very high priority, next only to Defence and Food.

4. The Committee recommended that development of adequate marketing facilities should, in due course of time, be the responsibility of the producers and distribution arrangements in which private agencies are also allowed to work should be accepted. The recommendation has been accepted and freedom for marketing has been allowed to the producers. From 1st October, 1966, 30% of the production of those factories which were contributing their production to the Central Fertilisers Pool, was released for direct sales. This free-sale quota was raised to 50% from 1st October, 1967 and to 70 per cent from 1st October, 1968. Production of new factories that have gone into production since the above decision was taken, has not been taken over into the Pool. The producers are free to market their free-sale quota in areas of their own choice.

5. The Committee recommended that imports of fertilisers and raw materials should be allowed free of customs duty and that there was a good case to exempt plants and machinery for fertilisers at least from regulatory duty. No import duty is now levied on fertilisers and fertilisers raw materials. After devaluation the regulatory import duty on machinery and plants was also abolished.

6. The Committee recommended that adequate credit arrangements should be made for the dealers of fertilisers to cover the period of stocking and for the farmers to purchase and use fertilisers and that the Central Short-term loans should be made repayable in 6 months. The recommendation has been accepted. Short-term loans are now given by the Department of Agriculture to the State Governments both for the stocking of fertilisers and for their purchase by the cultivators, as 'Marketing' loans and as 'taccavi' loans

respectively. The former is given to the extent of 50% of the value of fertilisers purchased and the latter to the extent of 1/6th of the value of fertilisers distributed. Both the loans are repayable within 6 months. It may be added that besides the short-term loans given by the Central Government, the Reserve Bank of India has also started a line of credit for the cooperative societies to cover the period of stocking, which can be availed of against State Government Guarantee. The State Bank of India and certain other commercial banks e.g. the Syndicate Bank, the Bank of Patiala etc. are also advancing loans for the stocking of fertilisers. Cooperative loans and taccavi is advanced to the cultivators for the purchase and use of fertilisers.

7. The Committee recommended that the Central Fertilisers Pool should supply fertilisers on 60 days deferred payment basis. The recommendation has been accepted and pool fertilisers are now supplied on 60 days deferred payment basis. Some of the manufacturers are also making supply of their free-sale quota of fertilisers on varying terms of deferred payment.

8. The Committee recommended that the State Governments should have a direct and effective contact with the wholesale agencies at rail-heads through the District Collectors etc. The principles underlying the recommendation have been generally accepted. The setting up of District Fertiliser Committees under the Chairmanship of the District Collector acting in consultation with District Agricultural Officer/Deputy Registrar of Cooperative Societies, Panchayati Raj representatives and wholesale agencies have been implemented by many State Governments.

9. The Committee recommended enhancement of distribution margins permissible to the distribution agencies. The recommendation has been accepted and in certain cases margins even slightly higher than those recommended by the Committee have been allowed. The principles underlying the fixation of the margins are followed.

10. The Committee recommended the setting up of a Fertiliser Promotion Corporation. Reply to recommendation 25(a) of the Estimates Committee covers this suggestion of the Sivaraman Committee.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 2nd January, 1969].

Recommendation (Sl. No. 2, Paras 2.12, 2.13)

It is well known that economic survival of India is closely bound with the rapid development of its agriculture and attainment of self-sufficiency in food. The Committee feel that one of the principal reasons for the insufficiency in food production for the growing popu-

lation of the country is the low per acre yield. To raise the low yield per acre inevitably means using adequate doses of fertilisers. They note from the available data that the consumption of fertiliser per acre of cultivable land in India is one of the lowest in the world whereas the loss of soil fertility is the same all over the world. The Committee find that India's level of fertilizer consumption in 1965-66 was 4.73 Kg. per hectare as compared to 349.32 Kg. in West Germany, 321.12 Kg. in Japan, 59.63 Kg. in USA and 30.55 Kg. in Australia during the same period. The Committee are further distressed to note that though great emphasis was laid during all the three Plans for an organised use of chemical fertilizers, the consumption of nitrogenous fertilizers during the First Plan period was about 69 per cent of the target fixed, and dropped to 57 per cent during the Second Plan period. The progress even in the Third Plan, when the production of fertiliser had increased to a sizeable level, was not satisfactory as they find that the increase in consumption was not as high as anticipated in spite of available supplies. This is evident from the fact that the carryover stocks of nitrogenous fertilizers rose from a figure of about 68,000 tonnes at the end of 1960-61 to nearly 214,000 tonnes at the end of 1963-64. This low rate of consumption of fertilizers according to the observations of the Fertilizer Committee was attributable to delayed receipt of fertilizers after manuring season, inadequacy of credit facilities for farmers and bottlenecks in the distribution arrangements.

The Committee are convinced that if timely and concerted efforts had been made from the very beginning for promoting the use of fertilizers the country would have been saved from the successive shortfalls in agricultural production, particularly foodgrains and would have been on the road to self-sufficiency long ago. Now that country's requirements for fertilizers have been worked out by the Fertilizer Committee after an exhaustive study of the demand for the Fourth Plan period (1970-71), the Committee hope that no efforts would be spared by the Central Government, State Governments and the manufacturers to raise the consumption of fertilizers from the level of 1.20 million tonnes in 1966-67 to 4.1 million tonnes of nutrients in 1970-71.

Reply of Government

The observations of the Estimates Committee have been noted. The Government of India also agree with the views of the Estimates Committee that all out efforts should be made to raise the consumption of fertilisers to 4.1 million tonnes of nutrients in 1970-71. Efforts are being made to intensify demonstrations and soil testing, to improve marketing, storage and credit arrangements and detailed replies on them have been submitted separately.

As pushing up the consumption of fertilisers has to be a joint effort between the Central and State Governments as well as producers of fertiliser, the recommendation has also been brought to the notice of the State Governments and the producers.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated the 14th February, 1969].

Recommendation (Sl. No. 3, Para 2.14)

The Committee agree that one of the basic objectives of planned economic and social development in the country is to ensure balanced growth of the different regions. They consider that the real key to the development of the backward areas lies in strengthening of their agricultural sector along with the development of industries. In the opinion of the Committee the imbalances in agriculture growth in some areas, other things being equal, is largely due to inadequate use of fertilizers as compared to other agriculturally developed areas. The Committee are unhappy to note the wide variation in fertiliser consumption among farmers in various States.. They find that farmers in the Southern region are more fertiliser-minded than their counterparts in other regions. The uneven consumption of fertilisers is also apparent from the fact that out of 24 States/Union Territories, the consumption of fertilisers in 1965-66 in 11 States viz., U.P., Andhra Pradesh, Madras, Maharashtra, Punjab, West Bengal, Bihar, Mysore, Gujarat, Madhya Pradesh and Orissa has been 83 per cent of the all India consumption, whereas the remaining States/Territories only accounted for 17 per cent i.e. 10 per cent by States and 7 per cent by plantation crops and industrial users. For proper and balanced growth of agriculture in all regions of the country, the Committee urge that Government should undertake intensive studies of the areas where fertiliser consumption has not been up to the mark so as to take necessary remedial measures in this direction.

Reply of Government

Government have noted the suggestion of the Committee. States have been asked to undertake intensive studies of the areas where the fertiliser consumption has not been up to the mark so as to take necessary remedial measures.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated the 2nd January, 1969].

Recommendation (Sl. No. 4, Para 2.15)

The Committee also consider it essential that an intensive fertiliser promotion programme should be drawn up and put into operation in order to step up consumption of fertilisers to the desired level.

To familiarise the millions of cultivators in India with profitable use of fertilisers and to bring home to them the potential profit from fertiliser use is a challenge which must be accepted and met by devising suitable promotional measures.

Reply of Government

The Government have noted the recommendations of the Committee for compliance. Some of the new steps initiated or proposed to be initiated to realise the objectives outlined by the Estimates Committee are reported below:—

(1) *National Demonstrations.*—The scheme has been sponsored by the Indian Council of Agricultural Research to be executed by the Agricultural Universities and Agricultural Research Stations in different States. These institutions conduct a specific number of demonstrations on selected farmers' holdings with the help of the research workers and subject-matter specialists. The main objectives of this intensive net-work of National demonstrations is to convincingly demonstrate to farmers the high production potentialities per unit area of land per unit time by adopting a multiple cropping programme and package of practices such as balanced use of fertilisers and soil-conditioners, effective water management techniques, plant protection measures and other agronomic practices. They will make use of improved implements for different operations and the recommendations made by the soil-testing laboratories for balanced use of fertilisers. These would be fully exploited for the purpose of training the farmers in one hundred selected districts and would be supported by effective audio-visual aids in the flow of latest research results to the farmers in these areas. About 2,600 National Demonstrations on farmers' fields are proposed to be laid in the country. The programme will cover irrigated areas, but will be extended to the unirrigated areas as well. The districts selected for farmers' training may each have about 15 such demonstrations and other districts will have a smaller number, each demonstration will be controlled and advised by a group of agricultural scientists or subject-matter specialists. The actual cultivation will be done by the farmer himself under the guidance and supervision of the experts. In this programme the fertilizer application will be based on soil-testing, which will ensure balanced use of fertilisers.

(2) *Soil-Testing Services.*—The programme of providing adequate facilities for soil-testing through a net-work of mobile and stationary soil-testing laboratories is proposed to be considerably expanded during the Fourth, Five Year Plan. A detailed account of these facilities is being provided to the Committee in reply to their recommendation made in para 2.25 (Sl. No. 5).

(3) *Work done by manufacturers.*—With a view to broad-basing the agencies connected with promotional work, the Government has succeeded in persuading a number of manufacturers of fertilisers in initiating sizeable programmes of demonstration, publicity, farmers' education etc. For example, the Fertiliser Corporation of India, through its various producing units, has plans for producing films and arrange soil testing for propagating the use of balanced fertilisers. The Corporation is also producing literature for the purpose. They are also taking steps for intensifying the promotion work on fertilisers on regional basis. The Indian Potash Supply Agency are laying demonstrations and doing promotional work for the use of potash through audio-visual units. With full freedom allowed for marketing their products, obviously the producers are expected to intensify their promotional efforts in order to increase the sale of their brand products. The Fertiliser Association of India is also involved in these efforts.

(4) *Fertiliser Promotion Board.*—The question of setting up of a Fertiliser Promotion Board is also engaging the attention of the Government of India. It is proposed that the Board will review the promotional measures taken by various agencies and guide them about the nature and content of new promotional programmes, supplement soil-testing services and propaganda and publicity measures, act as a clearing house of information on new fertilisers and techniques of promoting fertiliser use and review and supplement the programmes of training.

The Government hopes that with all these intensive fertiliser promotion programmes, the profitability of the use of fertilisers will be brought home to the millions of farmers in this country.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)68, dated the 14th February, 1969].

Recommendation (Sl. No. 5, Para 2.25)

The Committee regret to note the delay in not providing facilities for soil analysis, extension services and necessary aids for increasing fertiliser consumption in the country. They feel that proper and adequate attention should have been given to provide the above facilities in the beginning of the First Plan itself.

The Committee would like to stress that there should be a network of soil-testing service throughout the country together with continuous research to provide basic data on the best use of fertilisers and the best form of fertilisers for a given agro-climatic condi-

tion coupled with the study of soil. They feel that considering the vastness of the country and the fertiliser consumption programme embarked upon during the Third Plan, the number of soil-testing Laboratories set up by the end of the Plan was far too inadequate. The Committee regret the lack of interest on the part of Government to expand the service which is so vital to promote the consumption of fertilisers by the farmers. They are, however, happy to note that Government have now a plan to add 26 new laboratories as also 320 mobile soil testing laboratories during the Fourth Plan (1970-71). They hope that the results of field trials by these laboratories will not only provide the scientific information needed for giving reliable guidance to farmers on efficient fertiliser use, but will also provide the basis for formulating national fertiliser policy in relation to agricultural development programme. The Committee also need hardly, stress that the technical agronomic studies and research as available from the field trials should be evaluated by experienced agronomists and compared to similar studies made by other countries on similar crops. This would not only help in fulfilling the gaps in specific information but would also tend to provide an overall average of yields versus fertilisers treatment.

Reply of Government

Government note the emphasis laid by the Committee on the importance of soil-testing. In the 4th Plan (1969-70 to 1973-74), provision has been made in the State Sector for setting up 25 new Stationery soil-testing laboratories and for strengthening 14 of the existing laboratories. 34 mobile soil-testing laboratories are being fabricated for supply to States to work in conjunction with the existing stationery laboratories.

The Soil Testing Laboratories function as service laboratories for giving advice on balanced use of fertilisers. In order to strengthen the basis for recommendations on fertilisers, the Indian Council of Agricultural Research has taken up necessary programme of research under a coordinated scheme of soil test crop correlation. This project will evaluate the different soil testing procedures and work out the relationship between the soil tests and the crop responses under different agro-climatic and soil conditions.

The Indian Council of Agricultural Research has also taken up another research project called Coordinated Agronomic Trials. This project has 46 centres all over the country and also carries out trials on cultivators fields. The soil samples from these experiments are analysed and the relationship from these experiments are analysed and the relationship between the fertiliser response and soil test values worked out. This programme forms the basis for fertiliser

recommendations for different crops, soils and cropping pattern under different agro-climatic and soil conditions. In view of the introduction of the high-yielding varieties and new technology of agronomy which has been introduced in the country in recent years, this research programme required some reorientation and intensification which has been done under the reorganised Indian Council of Agricultural Research. In this programme Soil Scientists, Agronomists and Statisticians work as a team to study the different aspects of the problem and make efforts to improve the technique of soil testing and their prediction values.

The results obtained under this programme in the past have been made use of in formulating the national policy for fertilisers.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)68, dated the 14th February, 1969].

Recommendation (Sl. No. 6, Para 2.32)

The Committee on Fertilisers in Chapter VII of their Report have suggested a number of steps for making field demonstrations more effective. The Committee hope that Government will examine the recommendations of the Fertiliser Committee with a view to reorganise and reorient the demonstration programme as well as soil testing work particularly in backward areas. The Committee feel that the quality of the demonstrations can be improved if special and adequate staff with sufficient training is designated for the purpose under an organisation charged specially with this responsibility.

Reply of Government

In the light of the recommendations made by the Committee on Fertilisers, the Fertiliser Demonstration Scheme was re-organised and reoriented and substituted by the following Centrally assisted multicrop demonstration programmes in support of high yielding varieties and multi-cropping schemes:—

1. Scheme of Multi-crop Demonstration on 5 acre blocks with high-yielding and improved varieties;
2. Pilot Demonstration Project—a multi-cropping programme on 100 acre block with high yielding varieties in I.A.D.P. and H.V.P. district;
3. Soil-conditioners demonstration Scheme—a multi-cropping programme after conditioning of soil with lime or gypsum;
4. Scheme of staff support for supervision of Pilot Demonstration Projects and soil-conditioners demonstration scheme and for development of fertilisers promotion base.

The schemes were executed by the State Governments with effect from 1967-68 and they were conducted in the areas growing high-yielding varieties. With effect from 1969-70, in pursuance of the decision of National Development Council to minimise the number of Centrally sponsored schemes, it has been decided to strengthen only the national demonstration programme and leave it to the States to supplement it with such other demonstration programmes as they consider suitable.

Now, a coordinated scheme for National Demonstrations with multiple cropping, using high yielding varieties and package of practices including balanced application of fertilisers has been started by the Indian Council of Agricultural Research. The response of the crop to fertiliser would be the highest, if all other improved agricultural practices are also adopted simultaneously. The objectives and scope of this scheme have been explained in the reply to Item No. 4 of the Summary of Recommendations of the Committee.

The National demonstrations would, as recommended by the Estimates Committee, be carried out by trained scientific personnel drawn from the Agricultural Universities or Research Institutes so that the quality of demonstrations is kept high. Besides, the Government of India is actively considering establishment of a Fertiliser Promotion Board charged with the overall functions of seeing to the expansion of fertiliser use through helping in and supplementing the efforts of the State Governments in demonstration and provision of soil testing facilities with special attention to backward areas.

With regard to recommendation regarding soil-testing laboratories, reply to item No. 5 of the Summary of Recommendations may be referred to.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)68, dated the 14th February, 1969].

Recommendation (Sl. No. 7, Para 3.15)

The necessity to expand the fertilizer industry in India has been receiving Government's attention from the First Plan period. The Committee are, however, distressed to note the heavy and persistent shortfalls in installing targeted capacity and in achieving production according to installed capacity of fertilizers during each of the three Plan periods. It is surprising that even the installed capacity, both during the Second and Third Plan periods remained largely unutilised when the country was badly in need of regular supply of fertilizer for increasing the agricultural yield. They note that in the Second Plan against an installed capacity of 248,300 tonnes of nitrogenous

fertilizers, production actually achieved was 98,000 tonnes, *i.e.*, about 36 per cent. Similarly, in the Third Plan against an installed capacity of 586,500 tonnes, the production was of the order of 233,000 tonnes, *i.e.*, about 40 per cent. What is more regrettable is that the capacity actually installed during these Plan periods was much less than the capacity envisaged. While the capacity for nitrogenous fertilizers installed during the Second Plan was 65 per cent of the capacity envisaged, it dropped to about 59 per cent during the Third Plan. This shortfall in installing the capacity as envisaged and under-utilization of the capacity as installed, clearly indicates deficiencies in planning. The Committee feel that correct appraisal was not made of the requirements of fertilizers while fixing targets for the succeeding Plan. They consider that for realistic planning, it is necessary that the targets laid down in the earlier plan are reviewed and the reasons for their shortfalls identified and analysed for taking remedial action.

Reply of Government

The Government have reviewed the shortfall in target of production of fertilizers fixed in different plan periods from the following aspects.

- (i) Shortfall in production against the installed capacity;
- (ii) Shortfall in the installation of capacity against the target fixed;

In regard to (i) Government have taken steps to achieve production in the fertilizers plants upto the installed capacity. The measures taken are given below in brief:

SINDRI: For meeting the shortfall in coke oven gas output, it has been decided to install a Naphtha Reforming Plant which would produce synthesis gas equivalent to the ammonia production of 60 tonnes per day. The installation of the reforming plant is in progress.

ROURKELA: A naphtha gasification plant is under erection to meet the deficiency of coke oven gas in the plant.

NEYVELI: A study team which went into the cause of low production in the factory recommended various measures to improve production. These are under implementation. The production in the factory has since improved.

FACT: In the case of this factory also, a study team examined the causes of low production in the factory. The team recommended a number of measures which are under implementation.

As regards (ii), it is pointed out that with a view to attracting more foreign investment in the fertilizer industry so as to achieve the targetted capacity for fertilizers, Government have announced certain decisions in regard to foreign participation, pricing and distribution of fertilizers. Majority participation by foreign investors in Private Sector fertilizer projects was permitted. Fertilizer projects licensed prior to December, 1967, were given the freedom of distribution without control on prices of their products for a period of 7 years from the commencement of their commercial production, subject to Government having the option to take upto 30 per cent at a negotiated price. Although the date has been expired, it has been decided to extend the policy of freedom to fix prices and to distribute the products to projects licensed after 31st December, 1967 so long as any project licensed earlier continue to enjoy these benefits. Other measures taken for attracting foreign capital relate to high level assistance and speed up of procedures, high priority for import of raw materials, credit facilities etc.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 12th December, 1968].

(Serial No. 8, Para 3.16)

The Committee are also constrained to note that the indigenous production has not kept pace with the demand for fertilizers. While production of nitrogenous fertilizers during the First Plan was about 84 per cent of the target fixed, it dropped to 34 per cent during the Second Plan and further came down to 29 per cent in the Third Plan. The non-fulfilment of targets during the Second and Third Plans was due to the failure of both the public and private schemes according to schedule. It is a matter of deep concern that the public sector which should have been a pace-setter, has itself lagged behind in this matter. The Committee find that against an increase of 307,000 tonnes in the existing capacity expected to be achieved during the Second Plan, a capacity of 147,000 tonnes only was set up by the expansion of Sindri and FACT (First Stage) and by commissioning of Nangal Factory in February, 1961. The Varanasi factory which was the only project in private sector, though complete in 1959, could not be commissioned due to technical difficulties. The remaining two projects at Rourkela and Neyveli could also not be completed within the Plan period due to foreign exchange difficulties. It is

also noted that in the Third Plan, apart from the three continuing schemes viz., Neyveli, FACI (2nd Stage) and Rourkela, there were four new schemes in the public sector, viz., FACT (3rd Stage), Trombay, Namrup and Gorakhpur, with a total capacity of 455,000 tonnes. The capacity actually installed during the Plan was, however, 330,000 tonnes made up of Neyveli (70,000), Rourkela (120,000), FACT (2nd and 3rd Stages) (50,000) and Trombay (90,000).

Compared to the progress made in the implementation of the schemes in the public sector, the position in the private sector was still worse. The Committee are perturbed to note that while the private sector was expected to execute 10 schemes to create capacity for the production of 6.25 lakh tonnes of nitrogen at the end of the Third Plan, only one scheme at Ennore, with a capacity of 8,250 tonnes was completed during the Plan period itself. Out of the remaining 9 schemes 7 schemes aggregating as much as 442 lakh tonnes were abandoned either by the parties concerned or by their licences being revoked after a period, ranging from one to six years. In respect of the other two projects (i.e. Gujarat and Coromandal) with a capacity of 176 lakh tonnes, only construction work was started and the projects were completed and commissioned in 1967-68.

The main reason for abandoning the projects, as indicated by Government, was that promoters could not secure necessary foreign collaboration in the establishment of the respective factories. It appears to the Committee that neither enough care was taken in processing the applications for installation of manufacturing capacity for fertilizers nor was any close watch kept on the progress made by the parties concerned after the issue of letters of intent to make sure that they took effective action to tie up collaboration arrangements and place orders for machinery and equipment. The delay in revocation of licences of the parties concerned has not only resulted in foreclosing the capacity and thus keeping the genuine parties away from coming in the field, but has also affected adversely the production targets of fertilizers to the detriment of national economy. The Committee consider it unfortunate that the inability of Government to catch up with the fertilizer programme has retarded the progress of the country in attaining self-sufficiency in food production.

Reply of Government

Noted. Vigorous efforts are being made to catch up with the fertilizer programme.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68 dated 12.12.68].

Recommendation (Serial No. 9, Para No. 3.17)

It is well recognised that intensive cultivation which leads to agricultural self-sufficiency requires ever-increasing application of chemical fertilizers. According to Government programme fertilizer complexes will now be springing up all over the country in response to the urgent need for augmenting the food output. In this context the Committee would like to strike a note of caution that if the projects do not come up as scheduled, self-sufficiency in agricultural production may elude us for many years to come. The time taken to establish new complexes and the time required to bring them to optimum level of production are of no less importance than the economics of the projects themselves. The Committee are convinced that if the projects that have already commenced construction and those approved by Government proceed with speed and according to schedule it should not be difficult to establish a capacity of 2.4 million tonnes of nitrogenous and 1 million tonnes of phosphatic fertilizers as laid down for period ending 1970-71. At the same time the Committee would like Government to ensure that the capacity set up does not remain unutilised for want of raw materials and other foodstock.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 12th December, 1968].

Recommendation (Serial No. 10, Para No. 3.18)

The Committee would also like the Government to give thought to the fertilizer production programme of the Fifth Plan so that action is initiated right now to study the raw material requirements, prospective location of new plants and possibility of expanding the existing units.

Reply of Government

Action has already been initiated to formulate proposals for fertilizer production in the Fifth Plan period.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 12th December, 1968].

Recommendation (Serial No. 11, Para Nos. 3.27 and 3.28)

The Committee are glad to note that after an unsatisfactory performance of the private sector during the Third Plan period, Government have taken a number of measures to stimulate fertilizer

production in the country. These measures *inter alia* include invitation to foreign capital for investment in the fertilizer industry. Government have made special concessions and offered liberal terms to foreign investors for this purpose. It has been agreed to permit majority foreign participation, entrust management control to foreign collaborators, give seven-year price and distribution holiday, apart from other concession like the high priority for the seven-year price and distribution holiday, apart from other concessions like the high priority for the import of raw materials credit facilities, seeding programme, assistance in procuring land and other infra-structure facilities. The Committee note that during the period of 2 years of the announcement of the new policy in December, 1965, Government have received offers from only 9 parties. Of these, licence has been granted in one case for a capacity of 240,000 tonnes, letters of intent in six cases for a capacity aggregating 9,22,000 tonnes, while two proposals for a capacity of 660,000 tonnes are still pending consideration. The Committee are of the view that the response to the liberalised terms has not been very encouraging even though the deadline for receiving the offers was extended from 31st March, 1967 to 31st December, 1967. They are further concerned to note that subsequent to the issue of a Letter of Intent on 5th January, 1967 the proposal for the Haldia Project has been withdrawn by the foreign collaborator. They hope that the remaining 8 proposals under the new policy would soon fructify. The Committee would urge that with the expiry of the deadline on the 31st December, 1967 Government should now lose no time in processing the proposals. In this connection, they would like to invite attention to the recommendation contained in their 9th Report (Fourth Lok Sabha) on Industrial Licensing that Government should "carefully examine the question of foreign collaborations having regard to the state of development of engineering and design organisations of Fertilizer Corporation and FACT, the need for achieving self-sufficiency in fertilizers at an early date to meet agricultural requirements and the imperative necessity of producing the fertilizers at economic and competitive prices so as to encourage their use on a wide scale in the interest of larger production."

The Committee would like to emphasise that utmost care should be taken to see that the construction of the projects does not suffer from delays as in the past and that adequate and effective steps would be taken to ensure that they are completed and commissioned according to schedule. It should also be enjoined upon the collaborators that for the construction of the projects they should procure as much of the equipment as possible from within the country.

Reply of Government

In order to maintain a watch on the progress of fertilizer projects, both in the public and private sector, monthly progress reports are being obtained and examined in the Ministry in the Technical Cell comprising of a Chief Project Officer and two Project Officers.

The Committee's recommendation that the collaborators should procure as much of the equipment as possible from within the country has been accepted. Due care is taken to ensure the maximum utilisation of indigenous fabrication capacity.

As an example, in the letter of intent issued to M/s Occidental Petroleum Corporation for the establishment of a fertilizer factory at Visakhapatnam, the following clause has been introduced:

"The import of plant and machinery will be subject to clearance by DGTD. The design, engineering and construction facilities available in the country will be used to the fullest extent. The areas in respect of which the company will be obliged (notwithstanding any Prime Contractor arrangements which they may have in mind) to utilise Indian agencies as sub-contractors will be agreed with the Government of India."

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 12th December, 1968].

Recommendation (Serial No. 12, Para—3.37)

The Committee are constrained to observe that the delay in the implementation of scheduled fertilizer programme and the under-utilisation of the installed capacity, ranging from 30 to 40 per cent, during the Second and Third Plan periods have cost the country heavily in importing substantial quantities of fertilizers. This has not only resulted in heavy drain of foreign exchange which was so vitally required for development of the country in other spheres, but has made the country dependent more and more on others to solve the food problems of the country. The Committee note that fertilizers imported in the country during the First, Second and Third Plan periods amounted to 7.61 lakh tons, 22 lakh tonnes and 40.88 lakh tonnes which cost the country to the tune of Rs. 24.74 crores, Rs. 63.92 crores and Rs. 128.55 crores, respectively totalling Rs. 217.21 crores in foreign exchange. The Committee are given to understand during the course of evidence that during 1968-69 alone the bill of fertilizer import will go upto Rs. 225 crores on account of the high yielding varieties seed programme having

come in full play during 1967. The Committee have no doubt that if concerted and determined efforts had been made to put up fertilizer plants in time, the country would have saved considerable amount of foreign exchange which had to be spent on the imports of fertilizers and foodgrains during the Plan periods.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)/68, dated 12th December, 1968].

Recommendation (Serial No. 13, Para—3.38)

The Committee agree that the recent increase in the tempo of modernisation of farming is largely due to the promise of greatly increased profitability of crop production through the use of high yielding varieties of seeds, coupled with heavy dressing of fertilizers. They hope that this tempo will gather momentum, as this is the only course to take the country to self-sufficiency in food needs before long. In the meanwhile the Committee would urge Government to ensure that the fertilizer plants under construction|contemplation are completed expeditiously so that the deadline set for achieving self-sufficiency, both for food production and fertilizers, is advanced in national interests.

Reply of Government

The recommendation is noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4) 68, dated 2-12-68.]

Recommendation (Serial No. 14, Para—4.16)

“The Committee are constrained to observe that the Central Fertiliser Pool which was originally set up with the object of running the State Trading Scheme on a ‘no profit no loss’ basis had made substantial profits since its inception in 1944-45 till 1964-65 except in two years i.e. 1946-47 and 1954-55. The profit had progressively increased from year to year from Rs. 671 lakhs in 1944-45 to as much as Rs. 947 lakhs in 1961-62. These were particularly heavy during the years 1957-58 to 1963-64 and amounted to about Rs. 42 crores. The Committee are unable to agree with the Ministry that “the profits were only incidental and accrued generally on account of appreciable fall in the procurement prices of imported fertilisers....” It is apparent that Government made no serious attempts during the period to adjust the prices on their ‘appreciable’

fall and give the benefit of such fall in prices to the cultivators as an incentive to consume more fertiliser. The Committee fully endorse the views of the Public Accounts Committee expressed in their 23rd Report (1963-64) that this "was not consistent with the object of the pool, which was never intended to be a revenue earning Scheme, but was to serve as an equalisation fund, so that all the imported and indigenous fertilisers could be made available to the consumers at a uniform price throughout the country..." The Committee hope that such a situation will not be allowed to develop in future and that constant thought would be given to review the pricing policy keeping in view the objects of the pool. The prices of various types of fertilisers should be so fixed that the benefit of lower imported price or reduction in the cost of indigenous production is actually passed on to the consumers to promote their sale and wider use.

Reply of Government

First of all it may be pointed out that the figure of profit is 6.71 lakhs in 1944-45, and not 671 lakhs as mentioned in the second para. Further, the profit amounting to Rs. 42 crores standing as at the close of the year 1965-66 has been wiped off by the close of the year 1967-68. The prices of fertilisers are also being constantly reviewed keeping in view the "no-profit no loss" object of the pool. In future also this Ministry will review prices frequently and benefit of lower import prices or reduction in the cost of indigenous production will be duly passed on to the consumers. It is, however, not always practicable to achieve a precisely nil profit or loss at the close of the year owing to various supervening but unforeseeable factors. In actual working, therefore, marginal overall loss or profit to the pool may be inescapable.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68, dated 2-12-68.]

Recommendation (Serial No. 15, Para—4.21)

The Committee are glad to note that Government have been reviewing yearly the mode of assessment of the fertiliser requirements of the States from 1965-66 onwards keeping in view the new pattern of agricultural strategy for increasing agricultural production within the shortest possible time from irrigated and assured rainfall areas through the special programmes like the High Yielding Varieties Programme, Intensive Agricultural District Programme etc. They hope that as a result of this annual exercise a near realistic figure of the State's requirement of fertilisers would be available to the Central Government.

Reply of Government

The observation has been noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-12(40) 68, dated 2-12-68.]

Recommendation (Serial No. 16, Para. 4.24)

The Committee note that there have been wide variations between demand, allotment and actual supply of fertilisers to States during the period 1961-62 to 1966-67. They find that in certain cases the quantity of fertilisers allotted has been as low as about 40 per cent of the demand, the actual being still further less. The Committee are distressed to learn that some of the States were not able to lift fertilisers because of various difficulties about distribution, organisation etc. The Committee, in this connection need hardly stress that the tendency of inflating the demand or under-utilising the quantity supplied, particularly in the present period of shortages of fertilisers in the country, should be discouraged as it not only gives rise to infructuous expenditure on the transportation and handling of such quantities of fertilisers as cannot be consumed as programmed but also keeps out the genuine consumers who need them most in other areas. The Committee, therefore, consider it desirable that the States should be encouraged to develop through an organised effort a system of realistic assessment. In the opinion of the Committee this can be done only if the States are given the feeling that their demands would be carefully examined with due regard to the actual consumption and that the allocations made would not necessarily be on a uniform *pro rata* basis. It need hardly be stated that reliable advance estimates of the probable demand would help in the timely allocation of necessary foreign exchange, if any of the requirements are to be met through imports.

Reply of Government

For the year 1968-69, in order to assess the correct demand of fertilisers of the State, the position was discussed at the All India Conference held on 4th and 5th March, 1968. Keeping in view the fact that fertiliser units have been given freedom to market 50 per cent of their production in the manner they choose and the stocks of fertilisers held by the States as reported by them on 1st April, 1968, they have been informed of the quantities of fertilisers that would be supplied from the Pool. In assessing this quantity the following factors were taken into account:—

- (1) Capacity of the State to consume fertilisers on the basis of past performance of lifting by the States.

- (2) Anticipated stocks that would be available with the States on 1st April, 1968.
- (3) Quantities that would be available to the States from the factories located around their areas from open market.

The States have also been informed that they should obtain their unfed demand from the factories located around their areas from open market.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated 2-12-68].

Recommendation (Serial No. 17, Para—4.25)

Now that the fertiliser units have been given freedom to market 50 per cent of their production in the manner they choose with effect from 1st October, 1967 (to be raised to 70 per cent from 1st October, 1968). The Committee suggest that the State Governments should enter into suitable arrangements direct with the fertiliser units in their respective areas, where existing, for the supply of fertiliser requirements to the extent possible. The Committee feel that such an arrangement would be beneficial and economical both to the manufacturers and the consumers as it would cut down the expenditure on movement and other handling charges besides ensuring quick delivery. The Committee further consider that the requirements over and above the supplies available direct from the fertiliser units should only be met from the Central Pool.

Reply of Government

The suggestion contained in the recommendation is already being followed while making allocation of Pool fertilisers. During the current year only part of the requirements of the States is being met from the Central Fertiliser Pool. The States have been informed that they should obtain their requirements, which are unfed, from the factories located around their areas from open market.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated 2-12-68.]

Recommendation (Serial No. 18, Para—4.26)

The Committee also suggest that with a view to ensure regular supply of fertiliser to cultivators in time of need the State Governments should build necessary buffer stocks of fertilisers with supplies to meet requirements in time of emergency created by delay

in the receipt of requisite supplies on account of non-arrival of anticipated imports, bottlenecks in clearance from ports or difficulties in transport arrangements or there being a marked fall in the indigenous production. They feel that it should not be difficult to build and maintain such buffer stocks during the off-season of manuring.

Reply of Government

The Central Government is already giving off-season rebate for lifting of fertilisers in off-season so that the States can build up stocks. From the stocks position reported by States it has been observed that States have built up considerable stocks of fertilisers.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68, dated 2-12-68.]

Recommendation (Serial No. 19, Para. 4.39)

The Committee find that in the matter of distribution of fertilisers, States like Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh, Maharashtra, Mysore, Punjab and Rajasthan have resorted to co-operatives on a monopolistic basis. They are, however, concerned to note from the observations of the Committee on Fertilisers (Sivaraman Committee) that the performance of co-operative agencies in fertiliser distribution has not been upto expectations in many areas. Considering the large scale involvement of co-operatives in the distribution of fertilisers in the States, the Committee have no doubt as to the usefulness and popularity of the system in the rural areas. In order that the system is made more effective and the distribution of fertilisers is organised on scientific lines, the Committee would suggest that the functions of the co-operatives may not be confined to merely distribution of fertilisers, but that they should rather serve as a multipurpose institution so as to meet the needs of the farmers for other inputs like seeds, pesticides, agricultural implements etc.

Reply of Government

The operative part of the recommendation, so far as involvement of co-operatives in the distribution of all agricultural inputs (besides fertilisers) has been communicated to the State Governments for implementation.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)|68, dated 14-2-69].

Recommendation (Serial No. 20, Para. 4.40)

In order to stimulate healthy competition the Committee also feel it necessary that the distribution of fertiliser through other private agencies may be encouraged to the maximum. They hope that in the light of a new fertiliser policy when at least 70 per cent of the indigenous production will be marketed directly by the manufacturers themselves, the marketing system will be so organised that the manufacturers have adequate control and supervision over their distribution agents to ensure that they actually give the services required by the cultivator in respect of which an allowance has been made in the distribution margin. The Committee also trust that the industry would extend voluntary vigilance on its part for ensuring adequate supplies of fertilisers to the farmer in time and at reasonable prices with a view to facilitate the Government to work out a realistic pricing and distribution policy.

Reply of Government

1. So far as encouraging the distribution of fertilisers through private agencies is concerned, it may be stated that the internal distribution of fertilisers is the responsibility of the State Governments. The Committee on Fertilisers (Sivaraman Committee), *inter-alia*, recommended the acceptance of distribution system in all the States in which private agencies were also allowed to work as fertiliser distributors. The Government of India have accepted the principle underlying this recommendation and commended it to the various State Governments|Union Territories. In addition, wherever necessary, the State Governments concerned are also requested not to impose restrictions on the issue of dealer's licences to private parties nominated by indigenous manufacturers, if applications for grant of dealer's licences are received in accordance with the provisions of the Fertiliser (Control) Order, 1957.

2. The recommendations regarding adequate control and supervision by the manufacturers over their distribution agents and extending of voluntary vigilance by the industry to ensure adequate supplies of fertilisers to the farmer in time and at reasonable prices have been accepted by the Government of India and the indigenous manufacturers have been requested to take necessary steps in this connection.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated 2-12-68.]

Recommendation (Sl. Nos. 21, 23 (a), (c), (d), Para 4.41 & 4.43)

As the proper location of supply points largely determines the effectiveness of fertiliser distribution, it is of paramount importance that convenient locations easily accessible to the farmers, are judiciously selected for the sale of fertilisers. Particular care has to be taken in the location of distribution points in hilly, remote and backward areas where communication and transport facilities are comparatively less developed and the costs involved make it an uneconomic business even for cooperative societies to come forward to undertake this job in such areas.

The Committee consider that for an organised marketing system emphasis should be laid on the following programme:

- (a) It should organise a decentralised storage and distribution system. The network should be so organised that no farmer need walk long distance to obtain his fertiliser requirements.
- (c) An organised and efficient agronomic service unit as part of the selling and servicing organisation should be a necessary part of the programme. The agronomic service should be comprehensive and include soil testing facilities, advice on fertiliser application, selection of seeds, use pesticides, etc.
- (d) Programmes for the education of farmers, using all mass communication media techniques such as fertiliser festivals or fairs, exhibitions, field demonstrations, films, news papers etc. are essential to the success of the entire marketing programme. In these programmes, field demonstrations are successful means of convincing farmers of the profitability of fertiliser application. Similarly, mobile audiovisual units could also be used effectively in village programmes.

Reply of Government

Necessary instructions have already been issued to the State Governments and Union Territories Administrations to strengthen their distribution arrangements and make equitable allotment of distribution agencies to ensure that each distributor opens adequate number of retail depots in the interior areas. The Directorate of Extension of the Department of Agriculture is doing fertiliser promotion through Package approach in multicrop demonstrations

and high yielding varieties programme. Farmers training in fertilisers use during the Fourth Five Year Plan (1969-70 to 1973-74) will be built round the multicrop demonstration.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68, dated 2-12-68.]

Recommendation (S. No. 22, Para 4.42)

The Committee are of the view that in a country like India, where fertilizer has come into use recently, an organised educational and marketing programme is essential to gain general acceptance of the farmers to the use of the product. Besides attempting purely marketing tasks, the Committee therefore consider that the programme should devote its attention to the problem of consumer acceptance and to convincing farmers of the benefits of fertilizer usage. This is all the more necessary in view of the massive programme of production of fertilizers in the coming years, as production without effective marketing, may result in accumulation of stocks and thus jeopardise the national economy.

Reply of Government

Noted. The manufacturers are taking promotional measures, such as field demonstration, publication of brochures and journals for the use of farmers and dealers and setting up of soil testing laboratories etc. In this connection reply under recommendation Nos. 21 and 23 and also No. 4 may also be seen.

[Ministry of Petroleum and Chemicals and Mines and Metals (Deptt. of Petroleum and Chemicals) O.M. Ferts. I-20 (4) |68 dated 9-4-69].

Recommendations [Sl. No. 23(b) and 28, Paras 4.43 and 4.74].

The committee consider that for an organised marketing system emphasis should be laid on the following programme:

- * * * * *
- (b) It should provide credit to the farmer either through trade channels or through independent agencies like co-operative societies or farm banks.
- * * * * *

The Committee need hardly stress that an adequate and timely supply of credit facilities is a pre-requisite for the growth of fertiliser consumption. They feel that for providing the farmer with plant nutrients to the extent of 3.7 million tonnes (indigenous production and imports) by 1970-71, credit facilities both at the farmers level (credit to farmers) and at the distribution levels (i.e. marketing credits) will have to be augmented. They suggest that the Central and State Governments, banking institutions (Reserve

Bank and other Commercial banks) and the cooperative institutions and the manufacturers themselves should provide adequate funds so that the cultivator does not suffer for lack of financial resources for the purchase of fertilizers and other agricultural inputs.

Reply of Government

Both these paras deal with the need for giving adequate credit to the farmers to purchase fertilisers so that the target of 3.7 million tonnes of plant nutrients being used by 1970-71 could be achieved.

This issue was discussed at great length by a Committee appointed by the Fertiliser Association of India with which Government of India was actively concerned. Shri B. Venkatappiah was the Chairman of this Committee and a report has been given by this Committee dealing with the problem of fertiliser distribution.

The monopoly of the cooperatives in regard to distribution of fertiliser is being altered and private sector has been inducted into this business in a significant way all over the country. The commercial banks have come forward to give loans to farmers for production purposes and to distributors of fertiliser at different levels for purchasing and stocking fertilisers for sale to farmers.

The Venkatappiah Committee envisaged that roughly half the fertiliser to be consumed by 1970-71 would be dealt with by the cooperative sector and the other half by the private sector.

As far as the cooperative sector is concerned, the Reserve Bank is providing a line of credit to the State Cooperative Banks to enable them to give adequate accommodation to the marketing cooperatives for purchasing and stocking fertiliser. The Reserve Bank of India has also taken the responsibility of persuading the commercial banks to make up the shortfalls in the distribution credit requirements of cooperatives in any particular State. Between the Reserve Bank of India and the commercial banks, it is expected that distribution credit in the cooperative sector would be fully met. Besides, the Government of India are also providing short term loans to the State Governments for stocking and distribution of fertilisers.

The private sector naturally has to depend on the commercial banks for credit. There has been increasing awareness on the part of commercial banks for the need to enter in a big way into agricultural credit sector and credit for distribution of fertilizers is one of the major spheres attracting their attention. Many of the com-

mercial banks have started financing distributors for this purpose. The manufacturers have been asked to avail themselves of this facility and extend credit to their distributors.

The Venkatappiah Committee had recommended that a Fertiliser Credit Guarantee Corporation should be set up to guarantee banks the loans given by them to their clients for fertiliser distribution and also to enable them to obtain refinance, wherever necessary. Several steps have been taken to implement this particular recommendation and it is hoped that this Corporation would come into existence very soon. With an assurance of guarantee of losses and a liberal provision for refinance, the commercial banks would have all the encouragement that they need for entering into this business.

By the end of September, 1968 the commercial banks had given loans of Rs. 25.4 crores for fertilisers and pesticides. The short-term credit of cooperative structure in 1968-69 is expected to be of the order of Rs. 450 crores and bulk of it is meant for fertiliser distribution.

In addition, the different State Governments are giving Taccavi loans for purchase of fertiliser wherever it is necessary and cooperative and commercial banks may not undertake this task for this purpose. The Government of India also has been giving short term loans to the State Governments to the extent of 1/6th of the total value of fertilisers distributed during a particular year. During the year 1968-69, there is a provision of Rs. 105 crores in the Budget of the Government of India for giving short-term loans to State Governments for this purpose as well as for distribution of fertilisers, Seeds, Pesticides. Much of it would be used by the States for purchasing, stocking and selling fertilisers. Part of it will be used for giving Taccavi loans. Moreover, the manufacturers are being asked to devise ways and means of providing credit to the cultivators. The recommendations of the Committee are being brought to the notice of the Banking system.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68, dated the 17-2-69].

Recommendation (Sl. No. 26, Para 4.59)

The Committee feel that there is considerable scope for intensification of the quality control programme by drawing a larger number of samples and by providing additional trained staff for this purpose, where necessary. They consider that if adulteration becomes common it would not only have an adverse impact on the yield but would also shake the confidence of the farmers in the

effectiveness of fertilizers. In order to protect a large number of farmers against the malpractices of the trade, the Committee feel that there is need for greater vigilance in strictly enforcing the provisions of the law. They consider that regular drawal of samples for test analysis from straight fertilisers as well as mixtures at various stages in their marketing is an effective instrument for enforcing the control over the quality. They suggest that the provisions of the Fertiliser (Control) Order may be suitably amended in the light of past experience so as to provide deterrent punishments in the order to give protection to the farmers against supply of sub-standard materials, high prices through monopolies and combines, false and exaggerated claims for various fertilisers.

Reply of Government

The recommendation regarding the intensification of quality control measures has been communicated to the States and Union Territories for compliance. They have also been requested to examine the provisions contained in the parent Act—the Essential Commodities Act, 1955—under which the Fertiliser (Control) Order, 1957 has been promulgated, and intimate to this Ministry whether the existing provisions relating to penalties are considered sufficient; if not to indicate their suggestions for amendment. The suggestions, as and when received, will be duly considered and if necessary the provisions of the Act|Fertiliser Control Order 1957 will be amended suitably.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. Ferts. I-20 (4) |68 dated the 2-12-68].

Recommendation (Sl. No. 27, Para. 4.60)

Since maintenance of standards of storage and packaging have an important bearing on the maintenance of quality and the prevention of adulteration at all distribution levels, the Committee also suggest that ways and means should be devised to effect improvements in the fertilizers packaging and storage facilities in consultation with the industry.

Reply of Government

The recommendation has been duly considered by Government. A study regarding the existing situation and how it should be improved in the light of modern techniques of packaging, storing etc. has been undertaken in consultation with the industries concerned.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68 dated the 12-12-68].

Recommendation (Serial No. 29, Para—5.7)

Having regard to the acute shortage of fertilizer in the country, the Committee note Government's decision in allowing all fertilizer units licensed on or before the 31st December, 1967 the freedom of fixing prices for the sale of their products for a period of seven years from the commencement of commercial production. In order that this concession is translated into action within the minimum period possible, they would like to urge that Government should extend all possible assistance to the manufacturers to ensure the erection and commissioning of the new plants within the stipulated period as longer period of construction would not only result in loss of production but would also enhance the cost of production on account of increased capital costs.

Reply of Government

All possible assistance is being extended to private sector projects, especially in the matter of supply of water, power, transport etc., so that projects may be completed as expeditiously as possible.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) 68 dated the 12-12-68].

Recommendation (Sl. No. 30) Para 5.8

The Committee apprehend the possibility of misuse of the concession of pricing on the part of manufacturers and traders by creating artificial shortages and thereby increasing the price of fertiliser in certain areas. The Committee, therefore, need hardly stress that effective measures should be taken to ensure adequate and regular fertiliser supplies to match the requirements, so that no situations of shortages are created at any time in any part of the country.

Reply of Government

The observation of the Estimates Committee has been noted. The most important safeguard against the tendency of the manufacturers to profiteering would be availability of sufficient and timely supply to match the requirements. All efforts are made to arrange imports of such quantities of fertilisers as may be required to meet the deficit between indigenous production and requirements.

The main source of supply is bound to play an important part in countering any tendency for profiteering. According to the present estimates of production, the gap between indigenous production and requirements during 1973-74 may be anywhere between 1.4 million tonnes to nil of nitrogen and between 1 million tones to nil

of phosphates—entire requirement of potash being met from imports. The entire import of nitrogenous and phosphatic fertilisers will be handled by the Central Fertilisers Pool. The import of potash would be by State Trading Corporation. This will help not only in maintaining prices at a reasonable level, but will also counter situations of temporary shortages in any specific areas. Furthermore, over 60 per cent of the production of fertilisers will be in the public sector factories and Government will have an effective voice in the formulation of their distribution and pricing policies. The distribution and pricing policies in respect of supplies from these two sources will naturally be shaped in the interests of both the producers and the users of fertilisers.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68 dated the 14-2-69].

Recommendation (Sl. No. 31, Para 5.9)

As regards Government's option to purchase 30 per cent of the fertilizers production from the manufacturers at negotiated price the Committee note that Government have not so far laid-down any specific procedure for fixation of the price. They, however, hope that the option will be so exercised by Government that it helps in establishing the fertilizer prices at a very reasonable level to the advantage of both consumer and the producer.

Reply of Government

The Government have noted the recommendation of the Committee on the desirability of exercising the option in a manner which helps in stabilising the fertilizer prices at a very reasonable level to the advantage of both the consumer and the producers. Government have since decided to release 100 per cent of the production of public sector factories for direct sale. A request, if any, for help from a factory in marketing its products through the Pool, will be dealt with on merits.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M.
Ferts. I-20(4)|68 dated the 2-12-68].

Recommendation (Serial No. 34, Para 5.42)

The Committee are concerned to note the high cost of production of fertilizers in the country. While they agree that the cost of ammonia produced in the existing plants at Sindri, Nangal, Trombay, Rourkela, Neyveli and Alwaye is higher because of raw materials used, old technology, the smaller size units and the high investment, they feel that the high operating costs are also largely

due to non-utilisation or under-utilisation of the capacities on account of teething troubles and faulty equipments used. The Committee have no doubt that sustained and continuous efforts would be made to modernise some of the older plants and to improve production by installing additional balancing equipments where necessary so that increased production in these units may result in reduction in costs.

Reply of Government

Noted. Action has already been taken to modernise the Sindri Fertilizer Factory which is one of the oldest fertilizer factory. Action has also been taken to implement the setting up of a naphtha gasification unit at Rourkela for augmenting gas supply to the plant. In the Neyveli fertilizer factory, a number of improvements have been suggested by a Study Team and these are under implementation.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. Ferts I-20 (4) | 68 dated 12-12-68].

Recommendation (Serial No. 36, Para 5.44)

The Committee are also constrained to note that fertilizers are made available to farmer in India at costs much higher as compared to farmers in other countries. They find that the price paid by Indian farmer in 1965-66 for one metric tonne of nutrient—ammonium sulphate, even at the subsidised rates, was Rs. 1804 as compared to Rs. 729 in Pakistan (West), Rs. 1257 in Japan, Rs. 1324 in U.S.A. and Rs. 800 in Britain. Due to the impact of devaluation in June 1966 and the removal of subsidy, the price stands at Rs. 2243 per tonne with effect from 1-4-1967. The Committee feel that one of the factors for high costs of agricultural products in India is the high cost of inputs used by the farmers. They consider that the aim of the fertilizer industry should be to manufacture and make available to the farmer fertilizers at the lowest possible price, so that the cost of agricultural products is proportionately brought down at rates competitive with other countries. In the opinion of the Committee the lower costs per tonne of fertilizer for investment, maintenance and labour would be possible by:—

- (i) Optimum plant equipment and plant lay-out;
- (ii) Construction of standard capacity units instead of tailor-made installations; and
- (iii) increase of unit capacity to the optimum.

The Committee have, no doubt, that cheaper fertilizers for farmers can flow out of the factories if the financial outlays are reduced to the minimum by properly assessing the realistic needs in phase, cutting down the time of erection and commissioning of the plants, using largely the raw materials|feed-stocks available indigenously, judicious selection of advanced technology, efficient distribution management for controlling and managing the physical distribution aspect of marketing.

The Committee are convinced that if fertilizers are made available in time at economic prices, the Indian farmer would not be lagging behind his counterpart in other countries in making full use of them to step up production and bring the proclaimed goal of self-sufficiency within reach.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. 1.20(4)|68 dated 12-12-1968].

Recommendation (Serial No. 3, Para 6.40)

The Committee observe that one of the factors for non-fulfilment of the targets of fertilizer production during the plan periods was the non-availability of raw materials and feed-stocks in required quantity and quality. The shortage of electric power and non-availability of good quality coal which affected the production of FACT and Sindri respectively during the Second Plan period continued to persist during the Third Plan period also. The deteriorating quality of gypsum also inhibited the Sindri factory from attaining the optimum capacity. The production at Rourkela Plant was much below its installed capacity mainly on account of non-availability of coke oven gas. The production at Nangal factory also suffered due to shortage of electric power. All these are indicative of calculations in planning going wrong and failure to take adequate timely measures to ensure the supply of raw materials and feed-stock to these factories. The Committee urge that effective measures should be taken to ensure the availability of raw materials and feed-stock to the existing fertilizer plants so as to ensure that capacity for the production of fertilizers installed in the country is utilised to the optimum.

Reply of Government

Noted. The power supply position in respect of FACT and Nangal has since improved and the production has not suffered in recent months due to power shortage. Power interruptions, however, continue to hamper production to some extent. In the case of Sindri, it is becoming more and more difficult to obtain good quality gypsum and coal in adequate quantities. A comprehensive scheme known

as the Sindri Rationalisation scheme has therefore been undertaken. On implementation of the scheme the by-product gypsum resulting from interaction of rock-phosphate and sulphuric acid will be used for the production of ammonium sulphate replacing the low quality mineral gypsum from Rajasthan. A naphtha gasification unit to supplement the gas from coke ovens is also being set up at Sindri.

The short supply of coke oven gas for the Rourkela Fertilizer Plant is being made good by the installation of Naphtha Gasification plant. This will increase the supply of coke oven gas substantially and raise the production at Rourkela to the optimum level.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) | 68 dated 16-1-69].

Recommendation (Serial No. 40, Para 6.67)

The Committee understand that out of one million tonnes of phosphatic fertilizer which is the target fixed for the Fourth Plan period, a considerable portion i.e. about 0.72 million tonnes will be based on imported sulphur and rock phosphate. Hence in order to achieve this target it is imperative that a regular and uninterrupted supply of imported raw materials is made available to the fertilizer factories on a high priority basis. In view of its word-wise shortage the Committee desire that no efforts should be spared by Government to procure sulphur. In this connection they welcome the constitution of the Sulphur Advisory Committee in the Ministry of Commerce and the Fertilizer Raw Materials Committee consisting of representatives of Fertilizer Association of India, Fertilizer Corporation of India and FACT to advise the Ministry of Petroleum and Chemicals. The Committee hope that problems relating to provisioning, import, allocation and distribution of raw materials will be tackled speedily and satisfactorily in the interest of smooth running of the factories and that difficulties which were faced in the recent past in this regard will be solved.

Reply of Government

“Noted. The recommendation has been brought to the notice of Ministries of Commerce and Finance, Economic Adviser to the Government of India, D.G.T.D. and S.T.C.”

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) | 68 dated 2-12-68].

Recommendation (Serial No. 41, Para 6.68)

India suffers from lack of indigenous sources of sulphur and rockphosphate. It is understood that owing to universal chronic shortage of sulphur various processes for the production of phosphatic fertilizers without the use of large quantities of sulphur are under study in various parts of the world. The Committee suggest that Government should keep themselves abreast and take full advantage of such technological developments so that India may reduce her dependence on imported sulphur to the maximum extent possible. It is, therefore, essential that vigorous and intensive efforts should be made for exploring, prospecting and exploiting the rockphosphate and pyrites deposits in U.P., Madhya Pradesh, Rajasthan and Andhra Pradesh. The Committee are glad to learn that the increasing shortage of sulphur and its high cost has turned Government's attention to the production of nitrophosphates in some of the factories, e.g. Trombay Fertilizer Factory which eliminates the use of sulphur.

Reply of Government

Noted. The recommendation has been brought to the notice of all concerned.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68 dated 2-12-68].

Recommendation (Serial No. 42, Para 7.5)

The Committee are glad to note that a beginning has been made with the large size plants based on the new single stream principle in ammonia and urea production by setting up the plants at Cochin and Durgapur. They also note that most of the new plants will be producing urea which is the most concentrated nitrogen fertilizer and also complex fertilizers. The larger production of more concentrated fertilizer will also help in reducing transport and distribution costs. Recent advances in the technology of fertilizer production has been phenomenal in the developed countries. The Committee would like to stress the need to keep abreast of the new ideas and techniques in the fertilizer industry and hope that Government will make full use of the fast growing technological advances in this field and use them effectively in the new plants under construction|contem-
plation.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20 (4) |68 dated 16-1-69].

Recommendation (Serial No. 43, Para 7.23)

The Committee note that there is some element of over-lapping and duplication in the present activities of the P&D Division of FCI and FEDO of FACT. They would, therefore, suggest that these organisations should work in close collaboration with each other so that they operate in a complementary manner. Care should, however be taken to ensure that available know-how and engineering capabilities of each of these organisations are fully utilised and no avoidable payments in foreign exchange are made for acquisition of services which may be available with one or the other organisations and which can be put to mutual help in working out schemes. The committee hope that when the two organisations are placed under the direction of a Technical Director, as recommended by the Study Team set up by the Ministry of Petroleum and Chemicals, necessary improvements would be made to bring about effective coordination and liaison between the two organisations.

Reply of Government

The recommendation of the Study Team is that "P&D and FEDO should be continued as entities under a technical director, who will be responsible for research, design and Engineering functions".

To implement this, firstly the FCI and FACT should be integrated and secondly the two organisations namely, P&D Division of FCI and FEDO of FACT should be placed under the direction of a technical director. Due to various reasons the proposal of integration of FCI and FACT has been deferred. However, the desirability of P&D Division and FEDO working in a complementary manner with respect to the acquisition of know-how has been recognised for a number of years. It has been agreed between P&D and FEDO that each should help the other and acquire between them such know-how from abroad as required for the development of fertilizer industry and technology in the country.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68, dated 16-1-69].

Recommendation (Serial No. 44, Para. 7.42)

The Committee are glad to learn that the Planning and Development Division of the Fertilizer Corporation of India and the FACT Engineering and Design Organisations (FEDO) have made valuable contributions to the development of fertilizer industry in the country. They observe that as a result of past experience gained and accumulated by the engineers, scientists, managers and workers

of these organisations over the years, in the design, construction and erection of various machinery and plants it has now become possible to organise full-fledged engineering and design organisations, competent to undertake the complete designing and engineering of fertilizer and chemical plants in India itself, a work hitherto undertaken by foreign firms only. The Committee are, however, concerned to note the observations of the Working Group of the Planning Commission that has not been possible to put to test the capacity of these organisations at practical plane and to identify such deficiencies as might exist, because neither of these two organisations has so far been given responsibility to completely design, engineer and construct a fertiliser project.

The Committee feel that with the experience gained as a result of designing and erecting the two plants at Durgapur and Cochin, the Planning and Development Division and the FEDO would play a greater role and would be able to take over the entire responsibility of designing and engineering of at least two fertilizer plants a year with the know-how developed by them or acquired and purchased from other countries. They have no doubt that the fulfilment of these tasks according to schedule would largely depend on the extent to which the fertiliser production programme can be insulated from the uncertainties of foreign aid and put on firmer ground by greater reliance on domestic capital and equipment and know-how. It hardly needs to be stressed that the utilisation of the indigenous know-how in this vital sector would not only save considerable foreign exchange on design, engineering and know-how expenses, but would also result in maximum utilisation of the indigenous fabrication facilities for equipment.

Reply of Government

Noted. Apart from the Cochin and Durgapur Fertilizer Projects, the design engineering and erection of the Barauni and Namrup (Expansion) projects having a capacity of 152,000 tonnes of nitrogen each have been entrusted to the Fertilizer Corporation of India. The establishment of fertilizer factories at Korba and Ramagundam and Expansion of Nangal are also under consideration, when approved, the design, engineering and erection of these projects, it is expected, will be entrusted to the Fertilizer Corporation of India.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68, dated 16-1-69].

Recommendation (Serial No. 45, Para 7.43)

The Committee also feel that with the coming up of a number of new fertilizer plants these organisations, P&D and FEDO, will have to undertake a larger number of assignments in the coming years. They, therefore, suggest that the scope of these organisations should be expanded and strengthened suitably so as to enable them to shoulder the additional responsibilities ahead in the process of rendering on-the-spot expert advice.

Reply of Government

Noted. Both the organisations (Fedo and P&D Division) are being strengthened as required.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated 16-1-69].

Recommendation (Serial No. 47, Para 7.45)

As regards the proposal for the manufacture of catalysts by the firm of Laljee in collaboration with M/s Catalysts and Chemicals of U.S.A., it would be seen from the facts furnished by the Ministry that the preliminary proposal submitted by the firm did not include manufacture of catalysts used for fertilizers. It is not clear to the Committee why this item was included at a later stage. With a view to safeguard the development of the indigenous know-how of P&D against unfair competition. Government propose to incorporate two conditions in the foreign collaboration agreement at the time of according Government approval. The Committee have, however, their own doubts whether Government will be able to ensure compliance of the two conditions in actual practice. In these circumstances, anxiety among the scientists and engineers of the P&D. Division is understandable. The Committee have more than once deprecated the tendency of depending on foreign capital, technical know-how, import of equipment, components and raw materials, without exploring the possibility of finding these services from within the country. They feel that there is an urgent need to give the much needed encouragement and confidence to the indigenous talent.

Reply of Government

The observations of the Committee have been noted. Government are fully aware of the necessity to develop and encourage indigenous talent. They are giving all the necessary facilities to the P&D Division of FCI in the matter of development of all

aspects of fertilizer technology. While considering proposal from private parties for the manufacture of catalysts, particularly with foreign collaboration, they would incorporate suitable conditions in the foreign collaboration agreement etc. so that the development of catalysts through indigenous talent is not jeopardised.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)'68, dated 2-1-69].

Recommendation (Serial No. 48, Para 7.50)

The Committee have been informed that only 35 to 40 per cent in terms of value of the total plant and machinery required for a fertilizer plant is now being made available from indigenous sources. They are, however, happy to note that a major break through in the indigenous fabrication of plant and equipment would be progressively achieved in the next five years. The Committee have no doubt that with concerted effort from both the public and private sectors and with the encouragement and vigorous follow up action on the part of Government it should be possible for India to accelerate and advance the pace of self-sufficiency in the manufacture of plant and machinery for the fertilizer project.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)'68, dated 1-2-69].

Recommendation (Serial No. 49, Para 7.51)

The Committee also consider that it would be necessary and possible to enforce standardisation as soon as a measure of self-reliance is achieved in the matter of equipment. The Committee would like the Government to impress upon the enterprises in the private sector licensed for producing fertilizers with or without foreign collaboration to incorporate into their design and engineering maximum quantum possible of standard indigenously manufactured plant and equipment.

Reply of Government

Noted. Standardisation of equipment for fertilizer projects is being done wherever possible. Import of equipment for the public and private sector projects is being allowed only if it is not available indigenously. The Directorate General of Technical Development who is required to scrutinise the entire list of equipment to
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be imported from the indigenous angle is requested to keep their recommendation in view. In this connection, the reply given to recommendation at Serial No. 11 may also be seen.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68, dated 1-2-69].

Recommendation (Serial No. 50, Para 8.6)

The Committee are glad to note that the Railway Administration are fully alive to the need for the expeditious clearance of fertiliser both imported and indigenous as well as raw materials to the factories engaged in the production of fertilisers and have accorded priority for this purpose. They hope that fertiliser units will keep constant watch over their production and take urgent measures in consultation with the Railway to despatch the products so as to avoid accumulation in the factories. The Committee consider that a certain amount of advance planning would be necessary to ensure movement of supplies from the ports/factories to the centres of distribution/consumption. This would be possible if the fertiliser requirements of the various States and other consumer interests are properly assessed to correlate despatches from the ports/factories to avoid unnecessary delays and expenses on movement.

Reply of Government

Allocation of fertilisers from the Pool are made on quarterly basis generally a fortnight in advance. The States are also requested to furnish despatch instructions well in time to enable the suppliers to plan and arrange movement of available stocks without avoidable delay.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68, dated 2-12-68].

Recommendation (Serial No. 51, Para 8.14)

The Committee note that in implementation of the recommendation of the Sivaraman Committee some States, viz. West Bengal, Orissa, Bihar, Madras, Mysore, Kerala, Maharashtra, Gujarat and Punjab, have set up Advisory Committees on fertilisers, while others have either not set up or do not feel any need for such committees. As the Advisory Committee consists of persons concerned with the use and distribution of fertilisers, the Committee feel that its constitution would enable the State Government to better understand and resolve the various problems that might arise from time to time during the course of execution of various schemes on

fertilisers. They would, therefore, like the Union Government to use their good offices over such of the State Governments|Union Territories as have not yet set up the advisory committees with a view to persuade them to do so in their respective States|Territories. The Committee also feel that there is need to define the composition of functions of the advisory committees so as to bring uniformity in their outlook in all the States|Union Territories as far as possible.

Reply of Government

Internal distribution of fertilisers is the responsibility of the State Governments. Composition of the advisory committees will differ from State to State depending upon the agencies employed. It may be difficult to lay down any practical norms of composition. The recommendation of the Committee has been communicated to the State Governments with the request to review the position and intimate the action taken or proposed to be taken to this Ministry. On receipt of the replies from the State Governments it is proposed to examine whether a broad guidelines can be chalked out for adoption by the State Governments.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated 2-12-68].

Recommendation (Serial No. 52, Para 8.17)

The Committee consider that at the present stage of development of fertilizer industry, the need for bringing down the cost of production of the plant nutrients is of paramount importance. The interest of the country, as a whole, would be better served if the location of the project is decided by the logic of economic factors so as to maximise production at the most competitive rates as compared to international prices. The choice of plant location should be based on the total economies which can be realised through consideration of all factors involved, such as plant size, availability of raw materials, power and water, transportation and marketing facilities in the context of the infra-structure available. Significant capital savings are possible by judicious selection of the site where important plant units could be located from within the available area. Collection of dependable countour and soil data (for foundations design) is an essential first step. Had these points been taken care of, the wastage of time and money in setting up plants at Namrup and Gorakhpur could have been avoided. In this connection the Committee would also like to draw the attention of the Government to

their recommendation on location of industries in paras 3-180 of their Ninth Report (Fourth Lok Sabha) on Industrial Licensing.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. 1-20(4) | 68 dated the 1-2-69].

Recommendation (Serial No. 53, Para 8.22)

The Committee are glad to learn that there is complete accord and close consultation amongst the various Ministries concerned with the planning, production, pricing, distribution and import of fertilizers. The Committee, however, consider that in view of the importance of the fertilizer programme in the new strategy of food production it is essential that this team spirit and coordination amongst the various Ministries is not only maintained but further strengthened. They would, further, emphasise that the procedure for consultation should be simplified and streamlined so as to ensure that all procedural delays are eliminated and speedy decisions are taken.

Reply of Government

Noted.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. 1.20 (4) | 68 dated 16-1-69]

Recommendation (Serial No. 54, Para 8.30)

The Committee note the heavy shortfalls in production in both the Rourkela and Neyveli Fertilizer plants. They feel that there is need for keeping a close watch on the production, maintenance and operations in these two plants through regular reports, returns and visits of the technical committee set up for the purpose, and giving the two factories the expertise available with the Ministry of Petroleum & Chemicals. The Committee further recommend that with a view to associate the Ministry of Petroleum & Chemicals more actively in the operation of the two factories, it should be represented in the Board of Directors both at Rourkela and Neyveli.

Reply of Government

Noted. A representative of this Ministry is on the Board of Directors of the Neyveli Lignite Corporation. Question of appointing a representative of this Ministry on the Board of Directors of Hindustan Steel Ltd. is under consideration.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. 1.20 (4) | 68 dated 16-1-69]

Recommendation (Serial No. 56, Para 8.40)

The Committee are glad that the Association have also taken initiative for setting up the Fertilizer Institute to promote collection, study and dissemination of information with particular reference to technological and other related aspects of fertilizer production and also agronomic studies in the application of fertilizers. While welcoming this move the Committee trust that the Institute would try to establish cooperative working relationship with such organisations and institutions as are already engaged in solving technological designing and engineering problems of the fertilizer industry as also the agricultural research institutions now functioning in the country under the Central and State Governments.

Reply of Government

Noted. The recommendation has been brought to the notice of the Fertilizer Association of India.

[Ministry of Petroleum and Chemicals and Mines & Metals (Deptt. of Petroleum and Chemicals) O.M. No. Ferts. I-20(4)68 dated the 9-4-69].

Recommendation (Serial No. 57, Para 9.10)

The Committee would like to observe that the present campaign for and stress on chemical fertilisers should not make the country oblivious about organic fertilizers and their role in soil fertility. The main organic fertilizers of economic significance are farm-yard manure, green manure, compost, sewerage etc. the importance of organic fertiliser arises not so much in the small quantities of plant nutrients these provide as in their role as a soil conditioner and as a catalytic agent to provide optimum condition for the efficient and maximum utilisation of synthetic fertilizer applied to soil. The massive application of inorganic fertilizers is no substitute to organic fertilizers. On the other hand the very fact of increasing supplies of inorganic fertilizers to soil make it all the more important to devote greater attention to organic fertilizers in order to keep the soil conditions conducive to obtaining maximum benefit from the application of large doses of inorganic fertilizers. Thus the role of organic manure is complementary to that of Chemical fertilizers. The Committee, therefore, suggest that adequate attention should also be given to the utilisation of the basic organic fertilizers much of which are currently being wasted.

Reply of Government

Development of Local Manurial Resources Rural Compost, Urban Compost, Green Manuring and Sewage/Sullage Utilization.

Government are alive to the need for the development and utilization of organic manures to the maximum extent. Programmes for the development and utilization of local manurial resources both in rural and urban areas constitute an important activity under the agricultural production programme. The direct contribution which organic manures make by way of plant food is relatively small due to their low nutrient content. Their application might be sufficient where non-intensive cultivation with suitable crop rotations is being practised. But in areas where intensive cultivation is being followed, as is generally the practice now, sustained productivity is rarely possible with the application of organic manures alone.

Side by side with the heavy fertiliser programmes now accepted, this Ministry have been laying equally great stress on the full utilization of organic manures. With a view to achieve this, schemes for rural and urban compost production, green manuring, and sewage/sullage utilization have been in operation on all-India basis as Centrally-aided State Plan Schemes. The present pattern of Central assistance in 1968-69 provides for 20 per cent grant and 30 per cent loan to the States for such agricultural production programmes. The Central assistance to the States is not given separately for organic manurial schemes, but it forms a part of the lump-sum assistance given for all the State Plan Schemes in the agricultural sector.

(i) Rural Compost

Under the scheme for larger and better utilisation of local manurial resources in the rural areas, the State Governments have been advised to educate and persuade the farmers to conserve and utilize fully cow dung and other cattle-shed wastes, farm wastes, night-soil and urine, green leaves and shrubs, tank silt and water hyacinth which have great manurial potential. The scheme has been making a steady progress through the Plan periods. As against the achievement of 66.00 million tonnes of rural compost production by the end of the Second Five Year Plan (1960-61), achievement by the end of the Third Plan (1965-66) was 119.58 million tonnes. Target for the old Fourth Plan has been fixed at 166.04 million tonnes of rural compost by the end of 1970-71. Achievement for the year 1966-67 is estimated at 121.56 million tonnes. Anticipated achievement for 1967-68 is 139.44 million tonnes and the target fixed for 1968-69 is 148.32 million tonnes.

(ii) Urban Compost

Under the scheme for preparation of urban compost, the local bodies (Municipal Corporations|Committees, Small Town Committees, Notified Areas Committees and Notified Panchayats) are required to collect the refuse available in their areas and convert it into compost. Legislation has also been enacted in some of the State making it obligatory on the part of the local bodies to subject refuse wastes available in their areas to the process of composting. The target of urban compost production set by the States for the Third Plan (1965-66) was 4.4 million tonnes and it was programmed to cover 3,000 urban centres in the country. Against this, achievement during 1965-66 was 3.34 million tonnes of urban compost production in 2500 urban centres. The target fixed for the old Fourth Plan is 5.60 million tonnes of urban compost production by the end of 1970-71 covering all the existing 3400 urban centres under the scheme. Urban compost production during 1966-67 was 3.4 million tonnes. Anticipated achievement of compost production for the year 1967-68 is 4.1 million tonnes in 2550 urban centres. The target of compost production fixed for the year 1968-69 is 4.6 million tonnes.

(iii) Green Manuring

Among the programmes for the increased use of organic manures, green manuring offers a very economical and effective way of increasing the productivity of land. The green manuring programme has made rapid progress during the Plan periods in some parts of the country, such as Andhra Pradesh, Madras Orissa and Uttar Pradesh. Against 10.5 million acres green manured by the end of 2nd Plan (1960-61), the area reported to have been green manured by the end of the Third Plan (1965-66) was 19.85 million acres. The target fixed for the old 4th Plan is 31.80 million acres. Coverage under green manuring estimated for the year 1966-67 is 20.98 million acres. The achievement anticipated for the year 1967-68 is 22.06 million acres and the target fixed for the year 1968-69 is 25.38 million acre.

Adequately supply of green manure seeds and irrigation water at the sowing time and at reasonable cost are the two essential inputs needed for the intensification of the green manuring programme. To obviate the difficulty in seed supply, green manure seeds in small pockets as well as in bulk are distributed free of cost or at concessional rates in a number of State/U.Ts. to enable the cultivators to develop their own supply of seeds. The Government of India also extends all possible help to the States Union Territories deficit in

green manure seeds in the procurement of these seeds from surplus States. In order to ensure availability of irrigation water in time for sowing green manure crops, States have been advised to make necessary arrangements for ensuring the release of water supply in April and May even if it may involve adjustment in the programmes for closure of canals for repairs. It has also been suggested to the States that water should be made available to farmers free of cost or at concessional rates, for growing green manure crops. The States have also been advised to evolve suitable cropping patterns to provide for growing of green manure crops without loss of any commercial or cereal crop.

The Government of India had been extending a subsidy of Rs. 2 per md. of green manure seeds to the State Governments for creating favourable conditions for cultivation to produce and multiply green manure seeds during the Third Plan period and the year 1966-67. Under the pattern of Central assistance for the Fourth Plan, which is in force from 1967-68, financial assistance to the extent of 20 per cent grant and 30 per cent loan is admissible to the States for such agricultural production programmes. As this scheme is included in the State Plan sector, Central assistance is not given separately for this scheme, but it forms a part of the lump-sum assistance given to the State Governments for all the State Plan schemes.

(iv) Sewage/Sullage Utilization

Sewage/Sullage available in urban areas is an important source of irrigation as well as of plant nutrients. It is estimated that about 700 million gallons of sewage/sullage are available per day. According to the information received from the State Governments, 250 million gallons of sewage/sullage per day are being utilised at present for irrigation in urban areas. The area receiving sewage irrigation is about 35,000 acres. In the old Fourth Plan, it is programmed to frame and implement suitable schemes for complete utilization of sewage in places where it is partially utilised or not utilised at all. The total expected utilization of sewage from these schemes by the end of 1970-71 may be taken as 350 million gallons per day which would irrigate an area of about 70,000 acres.

Special Development Programme

The urban compost and sewage utilization were given added importance in the Third Plan by providing extra funds (about Rs. 2.08

crores) under the Crash Programme over and above the State Plan ceilings. This was done with a view to enable the State Governments to take up new schemes as a part of the Special Development Programme for Agriculture launched in the last two years of the Third Plan. The expenditure incurred by the States during the years 1964-65, 1965-66 and 1966-67 was of the order of Rs. 1·96 crores.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4) [68 dated 16-1-69].

CHAPTER III

RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLY

Recommendation (Sl. No. 24, Para 4.49)

The Committee are unable to appreciate Government decision in allowing the Fertiliser Corporation of India to obtain for two years the services of an expert from America for advising the Fertiliser Corporation of India on matters connected with the marketing of the fertilizers produced by the Corporation. They feel that the Central Fertilizer Pool which has been engaged in marketing and distribution of fertilizers both indigenous and imported since its inception in 1944, would have, by now built up sufficient expertise to advise the units particularly in the public sector, to organise their own marketing and distribution system under the new fertiliser policy. Further, FACT, being a dynamic organisation in the fertilizer industry has already built up a satisfactory marketing organisation and has evolved an integrated programme for the distribution, sales, servicing and consumer education. Under the circumstances, the Committee consider that the decision of Government in obtaining the services of a foreigner on marketing has not been a sound one. They are of the opinion that the country should not go in for foreign experts on subjects where indigenous talent is available even though the services of such experts are easily available under some Aid Programme. In the present case, it is doubtful whether a foreigner, howsoever expert he may be in marketing, could have more intimate knowledge of the Indian way of life particularly of farmers in the villages, than an Indian expert in the field.

The Committee need hardly point out that the country has reached a stage where in many fields India will not be found wanting in expertise knowledge as compared to advanced countries. They would, therefore, emphasise that consistent with the national honour and dignity, Government should, as a matter of policy not go in for the services of foreigners unless these are very essential in highly technical and scientific fields. Even in such cases the selection should be done only with the approval of the Cabinet.

Reply of Government

Just before the services of the expert were sought in the year 1966, the bulk of the output of the Fertiliser Corporation of India was being taken over by the Central Fertiliser Pool for effecting equitable distribution to all the States of India. There was no competitive market in nitrogenous fertilisers since the supply was much less than the demand and so there was no need for developing a fertiliser sales campaign. A change came in 1966 when it was decided that the Pool would gradually cease to take over such fertiliser output and that every manufacturer should set up its own marketing organisation. Selling fertilisers in a competitive market was a new concept in India in 1966. The sale of fertilisers had to be accompanied by a series of services like soil testing and demonstration services and specific advice regarding the dosage and timing of application, etc. The Fertiliser Corporation of India could not have taken any expert from the Pool, since the Pool passed on fertilisers to the States and did not effect any sale to the farmer by itself. It may also be stated that Fertilisers & Chemicals (Travancore) was at that time operating practically as a monopoly in Kerala in view of the special arrangement with the State Government and probably a marketing expert from them would have been inappropriate to advise on marketing in a potentially competitive market. In those circumstances, the engagement of a foreign expert well-versed in promotional services was not inappropriate. In fact a number of fertiliser manufacturers who had not introduced efficient marketing methods and promotion programmes of the most modern type have now run into difficulties.

2. In the above circumstances it was important for the Fertiliser Corporation of India to have an expert who could advise on market research and development of ancillary services like training of personnel and sales agents, demonstration of the efficacy of the fertiliser use through audiovisual means and field demonstration, organisation of soil testing services, etc. The services of the expert were actually used in training Indian personnel and dealers in modern methods of marketing fertilisers. With the gradual development of Indian expertise and also training of Indian personnel abroad in the techniques of marketing, there would be soon no need for foreign experts.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68, dated the 17-2-69].

Recommendation (Serial No. 38, Para 6.41)

The Committee are informed that in view of the deteriorating quality of Rajasthan Gypsum and exhaustion of the mines, Government have decided to introduce Sindri Rationalisation Scheme which would produce phosphatic fertilizers and replace Rajasthan gypsum with by-product gypsum from the proposed phosphatic acid plant, at a cost of about Rs. 23 crores, including foreign exchange component of about Rs. 6 crores. The Committee understand that new deposits of gypsum have been found recently in Jaisalmer area in Rajasthan. They would, therefore, suggest that before launching the expensive rationalisation scheme, Government should make a thorough study of the economics of the new deposits to see whether the gypsum available in these deposits can be suitably used under the existing process of production in the Sindri Factory.

Reply of Government

The F.C.I. have made a study of economics of using Rajasthan gypsum in Sindri *vis-a-vis* the economics of Sindri Rationalisation Scheme. A copy of their note is attached (*Vide* Appendix I). It may be seen therefrom that it will be more economical for Sindri Unit to switch over to pyrites and by-product gypsum than to depend on natural gypsum.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)68 dated the 2-12-68].

Recommendation (Serial No. 39 Para 6.42)

As regards the import of liquid ammonia, the Committee find that the proposal from Messrs Dharmasi Morarji which was rejected by Government a couple of months ago has been accepted on reconsideration and a Letter of Intent issued to the firm on the 7th February, 1968. The Committee understand that the proposal has been pushed through on the consideration that in the coming years there will be growing pressure on the supply and price of naphtha, while ammonia prices are likely to go down.

The Committee also note that the proposal to set up a coal based fertilizer plant at Korba, abandoned in 1965, is now being reconsidered for revival after an infructuous expenditure of Rs. 1.7 crores.

The Committee are concerned to note that Government have not yet been able to take a firm decision on the basis issue as to how much future fertilizer capacity would be based on naphtha, imported ammonia or any other raw materials. They, therefore, feel that it is high time that Government take firm and final decision on this vital issue.

Reply of Government

It is not possible to take firm and final decisions in respect of the capacity to be based on different raw materials and the situation with respect to availability of raw materials, particularly of Petroleum naphtha changes from time to time. Other factors like the pattern of production, locational advantage etc. have also to be taken into account. However, attempts are being made to evolve a balanced use of available feed-stock materials while drawing up the programme for the Fourth Five Year Plan.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4) 68, dated 16-1-69].

Further information called for by the Committee

Government may specifically elucidate their reply with reference to Committee's observations made in the first two parts of para 6.42 and also indicate the criteria which have been adopted by them to evolve a balanced use of available feed-stock materials in respect of the programmes included in the Fourth Five Year Plan.

[LSS O.M. No. 4/24-B/ECI/68, dated 17th July, 1969].

Further Reply of Government

The Planning Group on Fertilizer Industry has since studied in detail the position regarding feed-stock and materials for nitrogenous fertilizers. Relevant extracts from the report of the Group on the subject are enclosed (Vide Appendix II). Government will be generally guided by the observations of the Planning Group in this respect in regard to the implementation of fertilizer projects in the Fourth Plan period.

[Ministry of Petroleum and Chemicals and Mines & Metals
(Deptt. of Petroleum & Chemicals) O.M. No. Ferts. I-20(4) 68,
dated the 23rd July, 1969].

Recommendation (Sl. No. 46, Para 7.44)

The Committee are unable to appreciate Government's decision to pose the Trombay extension scheme to US AID for assistance particularly when P&D claim that they could undertake this assignment and had amply demonstrated their capabilities by the designing, engineering and installation of the Rourkela Fertilizer Group of plants as far as ten years back.

They are of the opinion that projects undertaken with tied foreign loans on turn key basis often cost much more than similar projects wherein the country is free to utilise its own know-how and equipment to the maximum extent possible."

Reply of Government

Due to acute shortage of free foreign exchange and US AID's readiness to meet the foreign exchange requirements of the Trombay Expansion Scheme, it was decided to pose the Scheme to US AID. US AID have since conveyed their readiness to finance the Scheme. It has been laid down that the designing engineering and construction capabilities available indigenously should be fully availed of in the implementation of the scheme. Material and equipment available indigenously will also be fully utilised.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)68, dated 2nd January, 1969].

Recommendation (Sl. No. 55, Para 8.39)

The Committee note the growth of Fertilizer Association of India as a representative body of the fertiliser interests in the country voicing the views of the industry. They are given to understand that the Association is the only forum for organizing seminars, symposiums etc. on the problems of common interests to both the public and private sectors in the matter of cost, financing, design, engineering, construction and operation of fertilizer projects and production, pricing and distribution of fertilisers. The Association is thus rendering useful service in making the country conscious of fertilisers and in focussing the attention of the industry and the Government to the various problems of fertiliser industry. The Committee are not aware of the facts and circumstances under which the responsibility for fixing the price of superphosphate has been entrusted by Government to the Association. As the Association largely represents the producers of fertilisers and not the large mass of consumers throughout the length and breadth of the country the Committee consider it desirable that the representation should also be given to the consumers in the matter of fixing the price of superphosphates. They hope that appropriate steps would be taken by Government to ensure that the interests of farmers are safeguarded in the matter of pricing and distribution of fertilisers.

Reply of Government

1. *Price fixation by the Fertiliser Association of India.*—There is no statutory control on prices of single superphosphate. Till April 1966 the Government of India had been fixing informally the maximum ex-factory prices to be charged by Superphosphate Factories

for single superphosphate after a half-yearly review in consultation with the Fertiliser Association of India as a representative of the Industry.

The price formula adopted for these reviews takes into account variations of the weighted average prices of the principal raw materials, namely, rock-phosphate and sulphur and of polythene-lined gunny bags in determining the prices. Of late the price of sulphur had been fluctuating widely and the industry faced difficulty in securing adequate supplies of sulphur at steady prices. Consequently the industry represented that the price of superphosphate should be reviewed and revised more frequently and that the Association of the Industry may be permitted to determine and notify fair ex-factory prices for different units from time to time guided by the same principles as were being adopted by the Government of India in determining the variations according to the existing formula.

The demand for superphosphate has been rising steadily while production has not increased to the extent necessary. Meanwhile, in order to encourage increased production of fertilisers the Government of India has taken a policy decision to remove, as far as possible, controls on the Industry except in regard to maintenance of the quality of the product. This had to be applied to superphosphate manufacture also.

It was accordingly decided that the practice of fixing maximum ex-factory prices of single superphosphate by the Government of India should be discontinued. Instead, the Fertiliser Association of India, in consultation with whom the ex-factory price of superphosphate was being informally fixed till April 1966, would review the prices at fixed intervals and determine fair ex-factory prices to be charged by each unit. The ex-factory prices thus determined for each factory would be notified by the Association to the Government of India, all the State Governments and all producers as well as to the public at large from time to time. The Association have assured the Government of India that they will take steps to ensure necessary discipline and see that the maximum prices so fixed are given publicity and are followed by all units of the industry.

2. *Consumers becoming Members of the Fertiliser Association of India.*—The Fertiliser Association of India have no objection to consumers of fertilisers becoming their members provided they satisfy the condition laid down for membership in the Articles of the Association, as the Association is a company registered under the Companies Act.

3. *Safeguarding the interest of the Farmers.*—The Government accepts the need to ensure that interests of farmers should be safeguarded in the matter of pricing and distribution of fertilisers. Because of the adequate supply of phosphatic fertilisers arranged by the Government this year, some of the superphosphatic manufacturers were compelled to sell their product at prices lower than those fixed by the Fertiliser Association of India. Government proposes to ensure adequate inputs so that the domestic production and imported stock match the demand of farmers and there is no profiteering by industry.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)68 dated 2-1-69].

CHAPTER IV

RECOMMENDATIONS IN RESPECT OF WHICH REPLIES HAVE NOT BEEN ACCEPTED BY THE COMMITTEE

Recommendation (Sl. No. 25, Para 4.55)

The Committee note that Government have not so far been able to entrust the function of marketing and distribution of fertilisers either to a Marketing Corporation as recommended by the Fertiliser Distribution Enquiry Committee 1960 or to a Fertiliser Promotion Corporation, as recommended by the Committee on Fertilisers in 1965. They are inclined to agree with the observations made by the Fertiliser Distribution Enquiry Committee that the Pool being a section of the Department of Agriculture "has little freedom of action although it is called upon to operate a trading scheme." The Committee on Fertilisers have also emphasised the need for a Central agency to handle distribution of pooled fertilisers efficiently on business lines. The Committee feel that the formation of a single central agency, would no doubt help in taking coordinated action for planning, procurement, distribution and despatch of fertilisers more efficiently and economically.

Reply of Government

Government have carefully considered the recommendations of the Estimates Committee and have decided that the function of marketing and distribution of fertiliser should not be handed over to any Corporation. It is felt that functions like arrangements for the provision of foreign exchange and for shipping schedules, organisation of priority railway movements and smooth and timely distribution in inaccessible areas are better facilitated by a departmental agency like the Central Fertiliser Pool. Besides, Pool system will come to an end in a few years as soon as the required quantities of fertilisers are produced in the country and the imports are stopped. In these circumstances, Government do not consider it necessary to create a Corporation for the distribution of fertiliser.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals)
O.M. No. Ferts. I-20(4)|68 dated 12-12-68].

Comments of the Committee

The Committee are not satisfied with the reply of Government. Please see comments in paras 1—7 of Chapter I of the Report.

Recommendation (Serial No. 25, Sub-para 4.55)

The Committee are glad that the study team appointed in October, 1967 has gone into this aspect again and have *inter alia* recommended that a single marketing division should be established to market the products of all the manufacturing units. The Committee hope that very early action would be taken on the recommendations of the Study team so that the marketing and distribution of fertilizers of public sector factories, which is perhaps more difficult a problem than the production of fertilizers itself, is organised on more scientific lines, keeping in view the role which the public sector has been called upon to play under the new marketing and pricing policy of fertilizers.

Reply of Government

The recommendations of the Study Team are as follows:—

“A single Marketing Division should be established to market the products of all the Manufacturing units of the Corporation and such Fertilizers as may be produced by plants in other public sector corporations as incidental to their major functions.”

This has to be achieved in two stages. In the first stage, it was envisaged that the two major public sector fertilizer organisations, namely, FCI and FACT would integrate and establish one marketing division to market the products of all the manufacturing units of the integrate corporation. During the second stage it was envisaged that the marketing division of the integrated corporation would negotiate with other public sector undertakings manufacturing fertilizer as a by-product, and take over from them marketing of by-product fertilizer on a long term basis.

The proposal for integration of FCI and FACT has, for various reasons been deferred. The FCI however, on its part, has accepted the desirability of developing a single marketing division for marketing the products of all its manufacturing units. As far as FCI are concerned a nucleus central organisation is in the process of being developed. It is envisaged that at an appropriate time when the central organisation is properly developed the marketing function will be taken over from the units by the Central marketing division and the activities will be re-grouped for implementation at local, regional, and central levels.

The FACT has also developed a good marketing net work and the methods adopted by it are most suited for marketing Fertilizers under Indian conditions. No change is therefore contemplated in the present set up so far as FACT is concerned.

In respect of marketing of by-product fertilizers produced by public sector organisations a beginning has already been made. An understanding has been reached between FCI and Hindustan Zinc Ltd., Udaipur for FCI to progressively take over marketing of super-phosphate produced by Hindustan Zinc Ltd. Similarly discussions have been held by FCI and Hindustan Steel Ltd. to develop agreed terms of FCI progressively to take over marketing of Fertilizers produced by Hindustan Steel Ltd.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)|68 dated 2-1-69].

Comments of the Committee

The Committee are not satisfied with the reply of Government. Please see comments in paras 1—7 of Chapter I of the Report.

Recommendation (S. No. 32 & 33, Paras 5.19 and 5.20)

The Committee find that there is wide difference in the ex-factory retention price of indigenous fertilizers and the pool selling price. Even after adding the expenditure on inland freight, incidental charges, sales tax etc., there is still a difference between this price (no-profit no-loss basis price) and the pool selling price. For example, one tonne of indigenous urea at the ex-factory retention price of Rs. 582|- after adding the incidental charges to the extent of Rs. 46.35 is sold at the pool price of Rs. 760|- per tonne as against the 'no-profit, no-loss' price of Rs. 628.35 per tonne. Similarly, in the case of certain imported fertilizers it is noted that the 'no-profit no-loss' prices are more than the pool prices. The committee are, therefore, constrained to observe that the pool prices have not been correctly fixed in the past. In view of this they feel that there is need for making a fresh review of the basis for fixation of prices both in respect of indigenous and imported fertilizers. The review has become all the more necessary in view of the liberalised pricing and marketing policy under which the producers have been given the option to sell at least 70 per cent of their products in the manner and at a price they choose with effect from the 1st October, 1968. They, therefore, suggest that a Committee of experts drawn from the fertilizer industry, commerce and trade, economists, cost accountants, representatives of farmers, etc., should be set up to go into the various elements of economics of cost structure so that a uniform price policy, advantageous both to producers and consumers, is laid down under the change conditions.

5.20. The aforesaid expert committee may also examine the question of introducing cost planning, cost control and cost reduction techniques by installing a cost reduction cell in each organisation, both in the public and private sector for ensuring economic cost in all the stages of process of production.

Reply of Government

The decision to leave fertilizer units to market their products without any restriction with respect to price and the area in which it could be marketed has come into full effect from October, 1968. It will be quite sometime before the effect of this policy on the prices of fertilizers is known. It is, therefore, felt that it is desirable to watch the developments for some time and only then, in the light of experience, consider whether measures are necessary or feasible for devising a uniform pricing policy.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)|68, dated the 17-2-69].

Comments of the Committee

The Committee are not satisfied with the reply of Government. Please see comments in pras 8—10 of Chapter I of the Report.

Recommendation (Sl. No. 35, Para 5.43) . .

The Committee are glad to learn that the cost of production in the new units at Namrup, Gorakhpur, Durgapur and Cochin would be lower due to larger capacities and modern technology. They are, however, surprised to note that even in these units the costs will vary from unit to unit though the raw material to be used in these units would be same. As for instance, the cost of urea in Gorakhpur has been worked out to Rs. 469.56 per tonne as against Rs. 343 in Durgapur and Rs. 420 in Cochin. The Committee hope that Government would go into this aspect with a view to bring down the costs to the lowest level and as near to each other as possible.

Reply of Government

Noted:

The cost of production varies from factory to factory on account of various factors, such as the raw material used, the delivered cost of raw material at site, capacity of the unit etc.

The cost of production in Gorakhpur is higher because the capacity of the Gorakhpur unit is only 80,000 tonnes N as compared to the capacity of the Cochin and Durgapur unit which is 152,000 tonnes of nitrogen. Apart from the economy of scale, the units at Durgapur and Cochin will use more modern equipment.

The difference in the cost of production between Cochin and Durgapur Project is largely due to the mode of calculation adopted by the two units. In one case, interest on investment was included while in the other, it was not. There is also a difference in the naphtha price for the two units.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)|68, dated the 1-2-69].

Comments of the Committee

The Committee are not satisfied with the reply of Government. Please see comments in paras 11—14 of Chapter I of the Report.

Recommendation (Serial No. 58, Para 9.11)

In Chapter VIII it has been discussed how more than half a dozen Ministries at the Centre are concerned with various aspects of fertilizers produced in the public sector. Apart from this according to the present programme more than half of the total requirements of fertilizers will be produced in factories in the private sector by the end of 1970-71. In the matter of promotion of fertilizer use and provision of credit facilities to farmers, besides the Central Government, the State Governments, manufacturers, banking institutions also come in the picture. The multiplicity of authority dealing with fertilizers underlines the complexity of the task and the need for close coordination among the various agencies involved. The Committee hope that efforts will be made by Government to rationalize the present multiplicity of authority in the sphere of fertilizers in such a manner that the functions relating to production, distribution and import of fertilizers are entrusted to a single authority|agency as far as possible, keeping in view the recommendations made by the Sivaraman Committee and the Study Team recently appointed by the Ministry of Petroleum and Chemicals.

Reply of Government

Noted: In this connection the reply given to recommendations at Serial No. 25 (para 4.55) may also be seen.

[Ministry of Petroleum and Chemicals (Deptt. of Chemicals) O.M. No. Ferts. I-20(4)|68, dated the 1-2-69].

Comments of the Committee.. ..

The Committee are not satisfied with the reply of Government. Please see comments in paras 1—7 of Chapter I of the Report.

APPENDIX I

(vide Chapter III, Recommendation Sl. No. 38)

Note on

Economics of using Rajasthan gypsum and Sindri Rationalisation Scheme

The existence of gypsum deposits in Jaisalmer district of Rajasthan have been known for the past several years. Detailed prospecting work was carried out by the Sindri Unit as early as the year 1954. The deposits occur near a village Mohangarh and are quite extensive in nature. Total reserve is estimated to be 7.5 million tonnes, out of which Sindri grade material containing 85 per cent $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ and above is about 5.3 million tonnes.

The deposits could not be considered for development earlier due to lack of proper communications. Only approach to the area was from Jaisalmer over a fair weather gravel road, a distance of about 65 Kms. Jaisalmer itself was not connected by railway link. Nearest rail head at Poraran was at a distance of 82 Kms.

With the opening of new rail link between Poraran and Jaisalmer in January this year, the nearest rail head at Hamira would now be at a distance of about 43 Kms. from Mohangarh. It has therefore, become possible to open up this deposit and a project for the production and despatch of about 1000 tonnes per day of gypsum from this deposit has already been approved and is under implementation.

The quality of gypsum, although much better than the gypsum which is available from most of our departmental mines, is not as good as the gypsum which used to be available from Jamsar mines of M/s Bikaner Gypsums Limited. Gypsum is crypto-crystalline in nature and falls to powder during transport and handling. The filterability of gypsum is better than the filterability of gypsum from our departmental mines but not as good as the filterability of Jamsar gypsum or Pakistan gypsum for which the original Sindri Plant was designed. The filterability characteristics as well as purity in the deposits is not uniform and at places varies a great deal.

Apart from Mohangarh deposit, the Sindri Unit is working 19 different deposits in 5 areas of Bikaner and Jodhpur Divisions. Total reserve in these deposits is about 2.8 million tonnes. The distribution of reserves in the various areas is given in Annexure.

All the deposits are small in size containing mostly amorphous gypsum. The quality in the deposits also fluctuates a great deal. In two of the deposits, viz. Kaoni & Bharru, the mining had to be completely suspended in December last year due to poor filterability of the material. Suratgarh deposits cannot be depended upon as they are likely to be submerged in Ghaghar Floods in the near future. Due to scattered nature of deposits, the railway movement has also been presenting serious difficulties. Some of the mines are located at distance of 20-30 Kms. from the rail heads and are connected by only fair wheather gravel roads constructed by us. Transport of gypsum from the mines, therefore, becomes problemetic during the rainy season. This particularly true of our mines in Suratgarh and Jetsar groups.

In addition to the above, M/s Bikaner Gypsums limited have a number of gypsum deposits leased out to them. The deposits which contain gypsum of quality acceptable to the Sindri Plant are at Jalalsar near Jamsar and Pallu group in Nohar Tehsil in Gangana-gar district.

Jalalsar deposit is estimated to contain 7-8 lakh tonnes of gypsum out of which quality suitable for Sindri would be about 3 lakh tonnes. The deposits contain crystalline gypsum somewhat similar to Jamsar material in addition to amorphous gypsum which forms top few feet of the deposit. Unfortunately, most of the deposit is under a village and although M/s Bikaner Gypsums Limited have been trying since last August to shift the village, their efforts so-far have not been successful. It is now anticipated that they may be able to start mining from this deposit only in July this year.

Other major deposit of gypsum in Rajasthan is the Pallu group of mines in Nohar district. This consists of 11 different deposits. Total estimated reserve in all the deposits put together is about 17 million tonnes out of which Sindri grade material is estimated to be 5.5 million tonnes. Estimated reserves in various deposits are as follows:

(In lakh tonnes)

Sl. No.	Name of deposit	Sindri grade reserve	Total reserve
1	2	3	4
1.	Bisrasar	0.65	1.78
2.	Maihla	19.00	46.24
3.	Pallu	6.50	14.87
4.	Kallarsar	6.50	15.78
5.	Baramsar	3.00	19.42
6.	Malkasar	6.50	16.80

1	2	3	4
7.	Purabsar	6.00	19.67
8.	Purabsar No.1	0.66	10.43
9.	Chanderi	0.64	4.75
10.	Maihla No. 1	2.40	13.73
11.	Lakhera	3.20	5.87
TOTAL		55.05	169.35

Earlier these deposits were not approachable as there was no road in the area. Nearest rail head which was about 30 miles away could be approached only by a camel track over high sand dunes and depressions. In the year 1965, a tarred road connecting Sardarsahar to hanumangarh was built. The deposits are located along the alignment of this road and can now be readily approached. The rail head at Hanumangarh is at a distance of about 80 Kms. Other railway stations which would be approached partly over the tarred road and partly over fair weather road are Bhukharkha at a distance of 50 Kms. and Nohar at a distance of 60 Kms. Loading facilities at Nohar and Bhukharkha stations are at present limited though adequate loading facilities are available at Hanumangarh.

Sindri Unit had applied for mining lease in respect of these deposits in the year 1965 but the State Government has not so far communicated any decision on the applications. On the other hand working permission has been granted to M/s Bikaner Gypsums Limited in respect of four major deposits viz. Maihla, Purabsar, Purabsar No. 1, Lakhesara. These deposits between themselves contain a little over 9 million tonnes out of which Sindri Grade material would be 2.8 million tonnes.

All Gypsum, however, is amorphous in nature with somewhat poor filterability. Arrangements have been made with M/s Bikaner Gypsums Limited to supply initially 120,000 tonnes of gypsum over a period of one year to Sindri from these deposits.

Sindri's annual requirement of gypsum is of the order of 7 lakh tonnes. With the introduction of direct neutralisation with sulphuric acid which will be available from pyrites based plant in November this year, the requirement of gypsum will come down to about 5½ lakh tonnes a year. Thus from the point of view of quantity, adequate quantities of gypsum are available in Rajasthan to meet Sindri's requirement for several years. However, there are many serious difficulties experienced with the use and dependence on Ra-

jasthan gypsum. These difficulties are explained below:

- (1) Most of the gypsum available is either amorphous or crypto-crystalline in nature which crumbles to powder causing excessive losses, difficulties in unloading, storing and processing Gypsum with excessive fines does not readily flow through the bunkers to the grinding mills, causing considerable fluctuations in the plant through-put.
- (2) Quality fluctuates widely not only in regard to purity but also its filterability. This results in fluctuations in plant load. The ammonia losses in the plant also increase due to fluctuations and this in turn reduce the out-put of ammonium sulphate from the plant.
- (3) Due to presence of large quantities of silica, the gypsum is abrasive and causes heavy wear and tear on the equipment of the sulphate plant. Equipment most susceptible to damage are; grinding mills, slurry pumps, agitators and filters. Due to poor filterability of gypsum, the loads on the filtration section equipment remain high with the result that time available for maintenance gets considerably reduced.
- (4) When the amorphous gypsum gets wet during the rainy season, it becomes extremely difficult to feed it through the plant. With the wet gypsum, the load in the plant comes to even less than 50 per cent. The filterability of gypsum also gets adversely effected when it gets wet.
- (5) Railways are finding it more and more difficult to provide wagons for transporting such a large quantity of gypsum. Difficulties are becoming more pronounced due to scattered nature of various deposits. During the rainy season the railway are unable to provide adequate number of closed wagons for transport of gypsum.

In the current year, it has not been possible to build up adequate stocks of gypsum before the rainy season and the Railways have also expressed their inability to provide any closed wagons. We have been advised to arrange for covering of open wagons with tarpulines and also to arrange for protection of tarpulines and also to arrange for protection of tarpoulines enroute.

- (6) All the deposits being located at fairly long distances from rail-heads, it is becoming more and more difficult to

maintain steady despatches at high rates from the mines to the rail-heads.

In the past the difficulties with the use of Rajasthan gypsum were not so serious, as about 50 per cent of our requirements used to come from the Jamsar mines of M/s. Bikaner Gypsums Limited. These mines contained crystalline material with uniform quality and good filterability. The crystal size was large and material was somewhat rocky in nature. Mixture of Jamsar gypsum with amorphous gypsum was helpful in tiding over some of the difficulties. For a few years upto the middle of 1965 hard rock gypsum was also being imported from Pakistan at the rate of 7-8,000 tonnes per month. Pakistan gypsum has very high purity and extremely good filterability. Mixture of Pakistan gypsum with Rajasthan gypsum used to improve the quality to a very large extent. Unfortunately, the Jamsar mines of M/s. B.G.L. got exhausted in the year 1967 and Pakistan gypsum became unavailable after the start of hostilities in September, 1965.

Apart from the difficulties mentioned above which are becoming more and more pronounced, economics of using Rajasthan gypsum at Sindri for production of ammonium sulphate are also not favourable. With the deteriorating quality of gypsum increase in railway freight rates and longer distance of mines from rail-heads, cost of gypsum delivered to Sindri is also going up. Average cost of gypsum which used to be Rs. 48.54 per tonne at Sindri in the year 1963-64, had gone upto Rs. 62.42 per tonne during the year 1967-68. The average cost during the current year is about Rs. 68 per tonne and will go upto Rs. 70 per tonne in the near future when more gypsum is despatched from Mohangarh.

Average works cost of production of ammonium sulphate which is the major fertilizer at Sindri comes to Rs. 306 per tonne based on a standard production of 3,20,000 tonnes per year and assuming standard consumption ratio. Out of this, cost of raw materials *viz.* gypsum and coal accounts for Rs. 226 per tonne. Gypsum alone accounts for Rs. 140 per tonne. As the raw materials account for the major item in the cost of production, the only way the costs can be brought down is to reduce cost of raw materials or their consumption ratios. With the present purity and quality of gypsum and coal, it is impossible to bring about any material improvement in consumption ratios. With the Rationalisation Scheme, it will be possible to eliminate the use of natural gypsum and substitute the same by by-product gypsum from the Phosphoric Acid Plant. As the gypsum would be a by-product, it would be available to the Sulphate Plant at almost no cost. This will reduce the works cost of ammonium sulphate from Rs. 306 to Rs. 166 per tonne.

Even if we were to assume the same cost for by-product gypsum at the cost of natural gypsum, there would still be substantial economics, as the by-product gypsum will be much purer and the consumption per tonne of sulphate would be 1.6 tonnes as against 2 tonnes per tonne of sulphate for natural gypsum.

The Rationalisation Scheme will add a capacity of about 156,000 tonnes of P_2O_5 at Sindri which will increase the total turn over and thus reduce the incidence of over-heads. With the production of phosphatic fertilizers, it will also be possible to market mixed fertilizers from Sindri containing both P and nitrogen.

The Scheme which involves setting up of a number of new plants will also help in better utilisation of sulphur staff at Sindri.

In view of what has been stated above, it is imperative that Sindri should go ahead with the implementation of Rationalisation Scheme in spite of the fact that large quantity of gypsum are available in Rajasthan. The profitability of the factory has been coming down and it is now impossible for the factory to bear any increases in the cost of raw materials or labour wages without running into losses. The Rationalisation Scheme will not only eliminate the use of natural gypsum but would considerably improve the profitability of the Unit.

Sd/- K. C. SHARMA,
General Manager
22-6-68.

ANNEXURE

Reserves in Departmental Mines other than Mohan Garh

(Lakh tonnes)

1. UTTARLAI GROUP	6.0
Kavas	
Uttarlai	
Kurla	
Sheokar & New Kavas	
2. NAGAU GROUP	4.0
Kharait	
Badana	
Chotisara	
Golsar/Kitalsar	
3. NAL GROUP	5.0
Kaoni	
Bharru	
4. SURATGARH GROUP	2.0
Baropal	
Dakia-Ki-Dher	
5. JETSAR GROUP	11.0
Raghunathpura	
Raghunathpura No. 1	
Hardaswali No. 1	
Hardaswali No. 2.	
Karnisar	
Dhandra	
TOTAL	<hr/> 28.0 Lakh tonnes

APPENDIX II

(Vide Chapter III, Recommendation Sl. No. 39)

EXTRACTS FROM THE REPORT OF THE PLANNING GROUP ON FERTILISERS (FEBRUARY 1969)

11. FEED STOCK AND MATERIALS FOR NITROGENOUS FERTILISER

11.1. The present capacity for production of nitrogenous fertilizers is based on coal|coke|coke oven gas|lignite, electrolytic hydrogen, natural gas besides naphtha. Most of the naphtha based capacity has come into production in the last two years. Feed-stock-wise break up of the *present capacity* is given below:

(a) Capacity based on naphtha	55.2%
(b) Capacity based on coal,coke/coke oven gas/lignite % of total	27.0%
(c) Capacity based on natural gas	9.4%
(d) Capacity based on electrolytic hydrogen	8.4%

11.2. Economies resulting from developments in steam reforming of naphtha and its local availability have made naphtha a preferred feed-stock next to natural gas. However, the magnitude of the contemplated expansion in the fertilizer and petrochemical industries and the difficulties that are likely to arise in making available naphtha for the entire expansion programme demand for a diversification of feed-stocks and utilisation of local raw materials other than naphtha to the extent possible and economical. It is in this context that plants (a) based on coal (Korba and Ramagundam), (b) based on LSHS (Nangal expansion) and (c) based on imported liquid ammonia as an interim measure (DMCC and Tatas) have been contemplated to minimise the dependence on naphtha.

11.3. The table below gives the break-up of the likely installed capacity in 1970-71 and 1973-74 for nitrogenous fertilizers based on

different feed stocks:—

	1970-71	1973-74
Total capacity 1000 tonnes Nitrogen	2164	5149
(a) Capacity based on naphtha —% of total	68.8	61.2
(b) Capacity based on coal/coke/cokeoven gas/lignite —% of total	12.8	14.3
(c) Capacity based on natural/Associated gas —% of total	14.7	12.2*
(d) Capacity based on imported Ammonia—% of total	—	6.2
(e) Capacity based on electrolytic hydrogen —% of total	3.7	1.6
(f) Capacity based on LSHS —% of total	—	4.5
	100	100

11.4. Consideration is also being given to the utilisation of heavier petroleum fractions. High sulphur content and cost of fuel oil from the Indian refineries makes the adoption of fuel oil as a fertilizer feed stock doubtful. The only other heavy fraction which appears *prima facie* suitable, is low sulphur heavy stock (LSHS). Indian Oil Corporation have indicated the availability of about 4,00,000 tonnes of LSHS from Barauni by 1973-74 for possible use in fertilizer plants. Nangal expansion which is proposed to be included in the Fourth Plan provides for the use of LSHS. The total requirements for feed stock and fuel for Nangal expansion are estimated at about 250,000 tonnes. Consideration is also being given to using LSHS at the Gorakhpur plant which is now using naphtha, since the partial oxidation process employed in the plant would permit the use of LSHS without having modifications in the plant. Gorakhpur could consume about 115,000 tonnes per year of LSHS.

11.5 NAPHTHA AS FEED STOCK

11.5.1. A recent study by the Indian Institute of Petroleum on the refining capacity upto 1975 suggests a refining capacity of 32 million tonnes crude by the year 1974. This study also suggests changes in product pattern to suit the demand pattern of various fractions in general and naphtha in particular by 1975. The refineries, at present, are designed to produce the minimum quantity of naphtha. The naphtha availability as visualised in the I.I.P. report

*Includes the entire capacity of M/s. G.S.F.C. (both stages) and Indian Farmers Fertilizers and Namrup.

as under:

- (a) If the present product pattern is continued there will be a deficit of 1.96 million tonnes of light distillates (which includes naphtha) in 1975.
- (b) Changes in product pattern to provide for a higher cut point for naphtha and use of light crudes could reduce the deficit of light distillates to 0.746 million tonnes in 1975.
- (c) The deficit of 0.746 million tonnes of light distillates could be wiped out by adoption of secondary processes.

Further studies regarding the techno-economic implications of (b) and (c) above are in progress.

11.5.2. Provision has, however, been made for import of limited quantities of Naphtha *vide* Annexure should the above expectation not materialise or get delayed. Such imports of naphtha could be effected by the Indian Oil Corporation or by the individual plants, if the former expresses its inability to arrange the imports. But a note of caution is necessary at this stage as the possibility of securing long term contracts from foreign suppliers for significant quantities of naphtha is not bright. The demand for naphtha is growing rapidly in the world particularly from petrochemical industries and this is bound to lead to considerable pressure on prices as well as supplies. Too much reliance on the Fourth Plan on imports of naphtha therefore, does not appear to be a wise course.

11.6 IMPORT OF AMMONIA

It may be advantageous to import ammonia selectively instead of naphtha to make the shortfall in hydrocarbon feedstock for a limited period. The actual period of such import may be fixed separately in each individual case on a careful consideration of all relevant factors. It is necessary to make a reference in this context to the possibility of negotiating joint ventures with the countries in Middle East for manufacturing ammonia from the waste gases in their oil fields and for converting the said ammonia into fertilizers in installations specially set up in India for the purpose. Such ventures, if established, will open up a new source of hydrocarbon feedstock for the Indian fertilizer industry and help cover the gap to a considerable extent.

11.7 COAL AS FEEDSTOCK

11.7.1. It is seen from the foregoing that the extent to which the future expansion of the industry could be planned on hydrocarbon feedstock is not unlimited. The indigenous production of naph-

tha is dependent on imported crude as the local crude is not adequate to feed all the refineries. Besides, the production of different fractions has to be balanced to suit the changing pattern of consumption. All these factors put a limitation on maximising the naphtha production in the refineries. The need to make the maximum use of alternative feedstocks of indigenous origin is therefore obvious.

11.7.2. An alternative feedstocks of indigenous origin that deserves to be considered seriously in coal. Coke and coke oven gases derived from coal are already being used as feedstock in the manufacture of nitrogenous fertilizers to the extent of about 280,000 tonnes of Nitrogen per year. There are, however, large deposits of non-coking coal, sometimes with high ash content, available in the country and Korba and Ramagundam projects mentioned earlier are being designed to make use of this type of coal. Two other sites, Talchar in Orissa and Chanda in Maharashtra may also be considered. To facilitate an early decision in the matter, a team of experts was sent to Europe recently to study the techno-economic aspects of coal based plants. The team has recommended the establishment of fertilizer factories based on coal.

ANNEXURE

Maintenance Imports—Nitrogenous Fertilizers

Description	68—69	69—70	70—71	71—72	72—73	73—74	74—75	75—76	76—77	77—78	78—79	Remarks
1. Installed capacity as at the beginning of the year '000 tonnes (N)	854	1024	1470	2164	2394	4249	5149	5149	5890	6550	7250	
2. Estimate of F.E. requirements for maintenance spares for annual tonnes 'N' (Rs.)	60	60	55	50	45	40	38	36	34	32	30	
3. Import requirements of Ammonia ('000 tonnes) N.	..	..	..	80	140	200	230	200	250	340	340	(DMCC, Tata & Occidental)
4. Imported sulphur requirements ('000 tonnes)	75	88	90	90	90	90	90	90	90	90	90	
Foreign exchange requirements (in Rs./millions)	50	61	81	108	108	170	196	185	195	210	218	
5. Maintenance spares	..	..	..	..	..	..	..	..	..	..	..
6. Ammonia @ Rs. 365/- tonne N, i.e. \$48.57/tonne N	..	..	..	29	51	73	84	73	91	124	124	
7. Sulphur @ Rs. 5375/tonne.	27	33	34	34	34	34	34	34	34	34	34	
8. Total of 5 to 7 (Rs./million)	77	94	115	171	193	277	314	292	324	368	376	

APPENDIX III

(*Vide* Introduction)

Analysis of the action taken by the Government on the 49th Report of the Estimates Committee (Fourth Lok Sabha).

I.	Total Number of Recommendations	58
II.	Recommendations which have been accepted by Government (<i>Vide</i> recommendations at Sl. Nos. 1-23, 26-31, 34, 36-37, 40-45, 47-54, 56 and 57).	
	Number	48
	Percentage to total	83%
III.	Recommendations which the Committee do not desire to pursue in view of Government's reply (<i>vide</i> recommendations at Sl. Nos. 24, 38, 39, 46 and 55).	
	Number	5
	Percentage to total	8.5%
IV.	Recommendations in respect of which replies of Government have not been accepted by the Committee (<i>vide</i> recommendations at Sl. Nos. 25 & 58, 32 & 33 and 35).	
	Number	5
	Percentage to total	8.5%