E. C. No. 840

ESTIMATES COMMITTEE (1975-76)

(FIFTH LOK SABHA)

NINETY-THIRD REPORT

MINISTRY OF AGRICULTURE & IRRIGATION

(Department of Agriculture)

Action taken by Government on the Recommendations contained in the Seventy-Sixth Report of the Estimates Committee (Fifth Lok Sabha) on the Ministry of Agriculture & Irrigation (Department of Agriculture)—Production of Foodgrains.

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INTRODUCTION

I, the Chairman of the Estimates Committee, having been authorised by the Committee, present this 93rd Report of the Estimates Committee (Fifth Lok Sabha) on Action Taken by Government on the recommendations contained in the Seventy-Sixth Report of the Estimates Committee (Fifth Lok Sabha) on the Ministry of Agriculture (Department of Agriculture)—Production of Foodgrains.

2. The Seventy-Sixth Report of the Estimates Committee (Fifth Lok Sabha) was presented to Lok Sabha on 29th April, 1975. Government furnished their replies indicating action taken or proposed to be taken on the recommendations contained in the Report on the 30th January, 1976. These replies were examined by Study Group E of the Estimates Committee (1975-76) at their sitting held on the 31st March, 1976.

3. The draft Report was adopted by the Estimates Committee (1975-76) on the 5th April, 1976.

4. The Report has been divided into following chapters:

I. Report;

II. Recommendations which have been accepted by Government;

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

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

V. Recommendations in respect of which final replies of Government are still awaited.

5. An analysis of the action taken by Government on the recommendations contained in the Seventy-Sixth Report of the Estimates Committee (Fifth Lok Sabha) is given in Appendix. It would be observed therefrom that out of 113 recommendations made in the Report, 80 recommendations *i.e.*, 71 per cent have been accepted by Government. The Committee do not desire to pursue 25 recommendations *i.e.*, 22 per cent in view of the Government's replies. The

Committee have not accepted the replies of the Government in respect of 3 recommendations *i.e.*, 2.5 per cent. Final replies of the Government to 5 recommendations *i.e.*, 4.5 per cent have not yet been furnished to the Committee.

NEW DELHI;
April 23, 1976.

Vaisakha 3, 1898 (*S*).

R. K. SINHA,
Chairman,
Estimates Committee.

CHAPTER I

REPORT

Assessment of Demands for Foodgrains

Recommendation (Serial No. 7, Para 1.41)

In paragraph 1.41 of their Seventy-Sixth Report, the Estimates Committee had emphasised that food was the basic need of man and that a growth in the *per capita* income might enable him to improve his diet but it would hardly affect his need for a minimum meal of bread or rice. The Committee had, therefore, reiterated their earlier recommendation and suggested that Government should assess the demand for foodgrains on the basis of minimum consumption requirement and the projected growth of population and fix the food production targets on a realistic basis to meet this demand in full.

2. In their reply Government have, while agreeing with the Committee's view regarding need-based planning of food production, pointed out:

> "Over successive Plans, Government have been trying to secure as high a rate of growth in foodgrains production as possible with the available resources—physical, technical and financial—in order to improve the food consumption standards of the people. While the Government would like to achieve a higher rate of growth, the constraints with regard to availability of irrigation, fertilizers and other inputs have to be taken into account in setting the targets."

They have also stated that "the methods of assessment of over all demand for foodgrains are reviewed from time to time."

3. Notwithstanding the efforts being made by Government to increase the rate of growth in production of foodgrains and to improve the standards of food consumption of the people, the Committee see no reason why it should be difficult for the Government to assess the effective demand for foodgrains in the country on the basis of minimum per capita **consumption of foodgrains and the projected growth in population. The demand for foodgrains so arrived at would enable the Government to plan food production**

particularly that of foodgrains, on a realistic basis. The Committee therefore, reiterate their recommendation that the demand for foodgrains should be assessed on the basis of minimum consumption requirement and the projected growth of population in order to facilitate production planning on a realistic basis.

Attachment of Agricultural Farm to Agricultural Universities

Recommendation (Serial No. 69, Para 5.38)

4. The Committee had, in Paragraph 5.38, observed that in the case of Agricultural University at Pantnagar, the University had achieved self-reliance by the sale of seeds and agricultural produce out of a large agricultural farm attached to it. They had suggested that the Central Government should work out a scheme of attaching adequate farm land to each Agricultural University/Institute, the income from which would supplement the finance of the University/Institute and to that extent reduce the burden on the Exchequer.

5. In their reply, the Ministry of Agriculture (Department of Agricultural Research and Education) have pointed out that some of the Agricultural Universities like those in Gujarat and Maharashtra have already sufficient sized farms. They have stated that the "State Governments will be consulted on this aspect further."

6. The Committee do not consider the reply of the Government adequate. The Committee feel that Government should have taken up the question of attaching suitable sized farms to Agricultural Universities/Institutes with the States and persuaded them to fall in line with the States like Gujarat, Maharashtra and Uttar Pradesh where the system already exists. The Committee desire that Government should take up the matter with the State Governments on an urgent basis so that the scheme of attaching adequate farm land to each Agricultural University/Institute in the country is soon evolved on a uniform basis and sufficient income is generated to supplement the finances of the Agricultural Universities/Institutes.

Priorities for Agricultural Research

Recommendation (Serial No. 70, Para 5.39)

7. In paragraph 5.39 the Estimates Committee had, while emphasising the need for a more purposive and direction-oriented Agricultural Research, recommended that the Indian Council of Agricultural Research should lay down clearly national priorities for Agri-

cultural Research on the basis of country's needs and problems in the field of development of agriculture, particularly foodgrains and the Agricultural Universities|Institutes should be directed to conform to the national priorities so laid down. They had also suggested that there should be a system whereby the Research Projects and the educational curricula of the Agricultural Universities| Institutes were closely scrutinised at the Central level so as to ensure that those sub-served the national priorities and that there was no overlapping and duplication of effort.

8. In their reply, Government have stated that periodic conferences of Vice-Chancellors of Agricultural Universities or Directors of Indian Council of Agricultural Research Institutes as also joint meetings of these two are being convened "for focussing attention on National Programmes of Agricultural Research and Training." It is further stated that "Scientific panels of Education set up by the Indian Council of Agricultural Research Institutes are taking steps to make curricula more relevant to national needs." Indian Council of Agricultural Research has also drawn up, in consultation with the Agricultural Universities|Institutes, related Organisations and Government Departments, schemes for various National Campaigns for implementation by Educational Institutions, Government Agencies or voluntary agencies suitably co-ordinated by the Centre and the States.

9. The Committee consider the reply of the Government inadequate. The Committee reiterate their recommendation that the Indian Council of Agricultural Research should clearly lay down national priorities for Agricultural Research and suitable control mechanism should be devised to ensure that research effort of the Agricultural Universities|Institutes is oriented accordingly, and there is no overlapping or duplication of effort.

Implementation of Committee's recommendations

10. The Committee would like to emphasise that they attach the greatest importance to the implementation of the recommendations accepted by Government. They would, therefore, urge that Government should keep a close watch so as to ensure expeditious implementation of the recommendations accepted by them. In case where it is not possible to implement any accepted recommendation in letter and spirit for any reason, the matter should be reported in time to the Committee with reasons for non-implementation.

11. The Committee also desire that further information where called for in respect of recommendations included in Chapters II, III and V may be intimated to the Committee expeditiously.

CHAPTER II

RECOMMENDATIONS WHICH HAVE BEEN ACCEPTED BY GOVERNMENT

Recommendation (Serial No. 2, Para 1.14)

The Committee find that Government are taking considerable time in extending the scheme of "Timely Reporting of Estimates of Areas and Production" to all parts of the country. The advance data on production cannot be complete unless it is simultaneously collected from all parts of the country by an effective machinery. The Committee, therefore, desire that Government should expeditiously extend this, or any other suitable scheme, to the States where advance data collection machinery either does not exist or is not effective.

Reply of Government

The scheme for timely reporting of estimates of area and production of principal crops was initiated by the Ministry of Agriculture and Irrigation in 1969-70 and is being implemented in a phased manner. Intially, it covered two States of Maharashtra and Uttar Pradesh and later it was extended to cover a number of other States. The scheme is currently in operation in eleven States where there is a regular reporting agency. Proposals to extend the scheme to Punjab and Jammu & Kashmir were approved last year and the State Governments requested to take action to implement the scheme from the kharif season of 1974-75. The State Governments could not do so due to administrative difficulties but they have since taken a decision to operate the scheme from the kharif season of 1975-76.

In the States of Kerala, Orissa and West Bengal which at present do not have any agency for collecting agricultural statistics through complete enumeration, a proposal for establishing such an agency in a sample of villages has been included in the Fifth Five Year Plan. The scheme has been approved for implementation from the current year, namely, 1975-76. Preliminary steps for implementing the scheme are under way in Kerala and Orissa. The Government of West Bengal has raised some issues which are being sorted out

in consultation with them. If the scheme is effectively implemented in these States, it should be possible to have estimates of area under principal crops immediately after sowings in all the three seasons at the all India level.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-76]

Recommendation (Serial No. 5, Para 1.27)

The Committee welcome the Scheme for reclamation of Alkaline and Acidic Soils proposed for implementation during the Fifth Plan period. The Scheme should have a proper inbuilt control mechanism to ensure that it is actually implemented in the field to the benefit of the small farmer and enables him to reclaim the land and achieve the desired agricultural production level. The Committee stress that Government should ensure that the scheme of 50 per cent subsidy on use of gypsum or lime which would entail an expenditure of Rs. 12.43 crores in Fifth Plan should receive close attention with a view to achieve the desired objective.

Reply of Government

The Government of India has operated a Centrally Sponsored Scheme for amendment of alkali and acid soils in compact areas. By the end of 5th Five Year Plan 1.09 lakh hectares of potential alkali soils and 1.65 lakh hectares of potential acid soils will be amended with the use of gypsum in the case of alkali soils and with liming material/basic slag in the case of acid soils. The implementation of this programme will involve a total expenditure of about Rs. 13 crores by the end of 5th Five Year Plan. The Scheme is confined to small and marginal farmers having not more than 3 hectares of land and 50 per cent subsidy for one hectare will be allowed on the cost of the soil amendment.

For having an inbuilt control mechanism to ensure that this scheme is implemented in the field to the benefit of small and marginal farmers, it is proposed to ask the State Governments to instruct the District Agricultural Officers to have a strict watch for ensuring that small and marginal farmers only are brought under this scheme. The scheme also provides for a staff of one Agronomist and two Agricultural Inspectors in each district. Besides rendering technical advice, arranging the procurement of soil amendment material and ensuring the achievement of the fixed targets, this staff will also be responsible for ensuring that only small and marginal farmers having not more than 3 hectares are covered under

this scheme. The State Government would also be requested to ask the Joint Director-Incharge and the Director of Agriculture to have occasional visits to check that this scheme is implemented for the benefit of small and marginal farmers. The officer incharge of the scheme in Government of India will also occasionally visit each district of operation to ensure that the scheme is implemented amongst the small and marginal farmers having not more than three hectares of land. With these steps it is hoped that the objectives of the scheme will be achieved.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-76]

Recommendation (Serial No. 6, Para 1.28)

The Committee note that the data regarding estimates of area under production of foodgrains is available with the Government only upto 1971-72. The Committee desire Government to streamline the procedure of collection of data so that it is available not later than six months after the conclusion of the year for which the data relates.

Reply of Government

The Government do have estimates of area and production of foodgrains for years later than 1971-72. There are regular arrangements for obtaining estimates of area and production of food crops from the different States according to an agreed time-schedule. There is some timelag in the availability of information from different States, but efforts are made to ensure that the compilation and release of all-India estimates of foodgrains are not unduly delayed. It may be mentioned, in this context, that the final estimates of area under and production of foodgrains for 1970-71, 1971-72, 1972-73 and 1973-74 were released at the all-India level after the close of the respective agricultural seasons. For 194-75 also, estimates from a large number of States have been received.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-76]

Recommendation (Serial No. 8, Para 1.42)

The Committee note that production of foodgrains which reached a record level of 108 million tonnes in 1970-71 registering an increase of 9 million tonnes over the previous year, declined to 105 million tonnes in 1971-72 and to 97 million tonnes in 1972-73, reaching a pro-

duction of 104 million tonnes in the last year of the Fourth Plan period. The reasons advanced for the low production achieved during 1973-74 are the failure of the Rabi crops in the absence of winter rains, cold spell in the first week of February and shortage of critical inputs like fertilisers and power. The Committee are distressed at this decline in foodgrains production. They are disappointed that despite major resource commitment for development of agriculture particularly production of foodgrains, 'research' and 'extension' has lagged behind and agriculture still remains, as it were, "a gamble in weather conditions". The Committee feel that if Government had kept a close watch on the situation in regard to the production of foodgrains in the earlier years of the IV Five Year Plan period, and taken timely action to overcome the problems hampering agricultural growth, the production would not have been as low as it came to be in the last year of the Plan period. They expected that having reached the figure of 108 million tonnes in 1970-71, it should have been possible to consistently maintain the rate of growth in production in view of advanced technology, development of high yielding seeds etc. The Committee hope that this unimpressive performance would not be repeated during the V Plan period and effective measures would be taken to ensure that there is no slowing down or stagnation in agricultural production. In this connection, they note that the Finance Minister in his budget (1975-76) speech mentioned the "continued sluggishness of Indian agriculture since 1971-72" and said that he regarded "the claims of agricultural growth as the first charge on our developmental resources". He also indicated priority action on many fronts to achieve a sustained increase in production. The Committee feel that if such a policy had been adopted and implemented in a sustained manner, the current bleak situation in the agriculture sector would not have come about. The Committee stressed that Government should lay down realistic targets of production of foodgrains during the V Plan period and take concerted measures to see that these are achieved. A close watch on the performance is all the more necessary particularly because the base level production of 114 million tonnes during 1973-74 has been assumed for fixing the targets of 118 million tonnes for 1974-75 and 140 million tonnes for 1978-79, the first and the last years of the V Plan, while the actual production during 1973-74 was less than 104 million tonnes.

Reply of Government

In the IV Five Year Plan, the base level for foodgrains production was assumed at 98 million tonnes and the IV Plan target was fixed at 129 million tonnes. This implied a target of additional production

of 31 million tonnes of foodgrains over a period of five years. The actual production in 1968-69 (base year), however, turned out to be 94.01 million tonnes only.

In the first year of the IV Plan, the foodgrains production at 99.5 million tonnes marked a rise of 5.5 million tonnes over the actual production in the previous year. In 1970-71, it went up further to 108.4 million tonnes, thus registering an increase of 14.4 million tonnes over 1968-69 level. In the next year, 1971-72, however, the foodgrains production received a set-back largely due to drought during the kharif season in some States and floods and cyclones in others. Even then, the production level at 105.17 million tonnes was higher than that in the base year by 11.16 million tonnes. During the crop year 1972-73, the country experienced severe and wide-spread drought as in many other parts of the world. As a result, the production of foodgrains, especially of coarse grains and pulses, was adversely affected, and the overall production of foodgrains came down to 97.03 million tonnes in 1972-73. In 1973-74, although weather conditions were not favourable in rabi, the production of foodgrains for the year as a whole, marked a recovery and reached a level of 103.61 million tonnes.

While it is true that the output of foodgrains has in recent years not been as good as the record level in 1970-71, yet it is a fact that lowest production of 97.03 million tonnes in 1972-73 was higher than the highest 89.4 million tonnes achieved in 1964-65, the best year before the initiation of the New Strategy of Agricultural Development. Efforts have now been made to meet the requirements of agricultural inputs on a priority basis and at present no shortage of fertilisers, diesel or power, etc. is experienced.

In the Draft Fifth Plan, it is envisaged to increase the production of foodgrains from an assumed base level of 114 million tonnes in 1973-74 to 140 million tonnes by 1978-79. However, as indicated above, the actual production in 1973-74 has turned out to be 103.61 million tonnes only. Steps being taken to achieve the Fifth Plan target of foodgrains production, include extension of cropped area, expansion of area under high yielding varieties or hybrids of different crops, development of minor irrigation command area development and better water management, introduction of better cropping patterns. The last one will be possible by advancing the sowing dates of rice crop in the eastern States of Assam, Bihar, Orissa, West Bengal, U.P. as also in Madhya Pradesh, Andhra Pradesh and Kerala, supported by timely release of water and raising of community nurseries

for the benefit of farmers who have no irrigation facilities. Other programmes include introduction of dry farming technology through pilot project and DPAP programmes, closer coordination among Agriculture, Irrigation and allied Departments, strengthening of arrangements for production and supply of quality seeds, stress on soil analysis and optimum utilisation of available fertiliser supplies supplemented by accelerated use of local manurial resources, strengthening of infrastructure of research, extension and farmers' training, popularisation of new varieties of rice, wheat, maize and millets through minikit programmes, expansion of institutional credit and attention to price and marketing support. The suggestions made by the Committee in this behalf have also been noted for guidance.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 9, Para 1.47)

A buffer stock of foodgrains is essential not only to meet emergencies arising out of natural calamities, but also to impart stability in the internal prices of foodgrains with which the general price level is intimately connected. The existence of a buffer stock of foodgrains tends to impart immunity against international pressures. It would also help negotiations for purchase of foodgrains from abroad as imports could be planned at a time when it is economically most beneficial for the country. Above all, the importance of a buffer stock of foodgrains for national security and internal stability cannot be over emphasised. The Committee are constrained to note that the buffer stock of 8.8 million tonnes built up by June, 1972 got exhausted in circumstances largely beyond our control. The current stocks of foodgrains with the Central as well as with the State Governments are insufficient even for the orderly operation of the public distribution system at the existing level. The Committee recommend that apart from stepping up procurement of foodgrains, Government should take effective steps to replenish the buffer stock at least to the peak level reached during the Fourth Plan period.

Reply of Government

The recommendation has been noted.

The importance of building buffer stock of foodgrains to stabilize food economy has long been recognised. The present policy of having a buffer stock of 7 million tonnes of foodgrains continues. In order to replenish the buffer stocks which have been depleted consi-

derably as a result of larger releases during 1972-73, necessitated due to drought and consequent fall in productions sustained efforts are being made to maximise the internal procurement.

Regarding imports of foodgrains, the Government of India continues to review the position from time to time. Purchases are being made from abroad to the extent necessary to maintain the public distribution system and a minimum reserve within our limited foreign exchange resources. A watch is also being kept on international market trends and purchases continue to be made having regard to prices and availability of foodgrains in various countries.

There has been some improvement in stock position during 1975 as a result of the intensification of procurement operations as also imports of foodgrains. Despite increased public distribution, total foodgrains stocks at the end of July, 1975 (latest available) stood at 4.96 million tonnes as against 3.83 million tonnes a year ago.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 10, Para 1.59)

The Committee are perturbed at the recent spurt in the prices of foodgrains in the exporting countries of the world due to which the cost of import of foodgrains has considerably gone up even though the imports are now at a much reduced level. The Committee hope that the Government would continue to project the case of the developing countries for availability of foodgrains at a reasonable price in the interest of world peace and prosperity.

Reply of Government

It has always been and would continue to be the endeavour of the Government to stress at World Fora that, in addition to material and technical assistance, foodgrains should be made available to developing countries at concessional prices and on favourable terms.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 1, Para 1.60)

The Committee have elsewhere in the Report stressed the need for building up buffer stocks so as to ensure that the public distribution system is not exposed to any uncertainty. Adequate buffer stocks

have a great stabilising effect on prices of foodgrains. In fact as has been remarked by an eminent authority that political stability cannot be based on empty stomachs. The Committee would like Government to take full advantage of the present forecast of a bumper Rabi crop to build up buffer stocks. Government should also pursue with the Food and Agriculture Organisation and the United Nations the question of having suitable buffer stocks which could be drawn upon in times of need by developing country like India. This is all the more necessary as the prices of foodgrains are showing a marked tendency towards steep increase and it would be increasingly difficult for the economy of a developing country like ours to afford such costly imports.

Reply of Government

The recommendation has been noted. It has been and would be the endeavour of the Government to stress at the International Fora (i) the need for creating reserves at both national and international levels to meet emergent situations; and (ii) the need of assisting developing countries in the creation and maintenance of national stocks for implementing World Food Security policies.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 12, Para 2.15)

The Committee note that in the Fourth Plan Document, the target of coverage under improved seeds was indicated as 72 million hectares including 25 million hectares under High Yielding Varieties. Government have, however, not been able to indicate to the Committee have, however, not been able to indicate to the Committee the actual achievements against the targets, except in the case of H.Y.V. where the target of coverage of 25 million hectares has been claimed to have been achieved during the Fourth Plan period.

They also note that for the Fifth Plan period "the effective seed requirement" and targets of "area coverage" have been indicated only in respect of High Yielding Varieties as 2.46 lakh tonnes and 40 million hectares respectively. As for collection of demand data and supply programme, the Committee observe that an attempt is being made to coordinate the demand and supply of seeds on a zonal basis at the Zonal Seed Conferences which, according to Government's own admission, is inadequate. They also note that the High Level Committee appointed as late as Oct., 1974 under the Chairmanship

of the Director General, Indian Council of Agricultural Research to finalise the production programme of breeder seeds and allocation of breeder and foundation seeds among identified seed producing agencies has desired the State Governments to individually assess their requirements and to plan and organise the seed production programme primarily within the State and taking, if necessary, the help of the national seed producing agencies.

The Committee are surprised that while the foodgrain production targets were laid down on the basis of extension of area under certified quality seed, until recently, there was no system of even assessing the demand of various varieties of quality seeds of different food crops on all India basis, much less of keeping a coordinated watch on their availability to ensure that these were available to the farmers in time. The Committee would like to emphasise that certified/quality seed is an essential input for stepping up production of foodgrains and as such its timely availability has to be ensured to the farmer. For this purpose, it is necessary that the requirement of seed is assessed properly and its production is planned and ensured, as it being done in the case of other agricultural inputs. The Committee, therefore, recommend that Zonal Seed Conference should be preceded by State level seed conferences at which a detailed analysis of seed requirements and supply sources within the State should be undertaken. The projected requirements of the States which have to be met from outside sources should be discussed at the Zonal Seed Conferences. Central Government should play a pivotal part not only in coordinated planning but also in production of seed, particularly Breeder/Foundation Seed, on the basis of state-wise requirements for proven varieties of seeds for different crops and make them available to the States on a timely basis so that the efforts to maximise foodgrain production do not suffer for want of good quality seed. Special attention should be paid by the Central Government and the National Seeds Corporation to meet the seed requirement of those States who do not have requisite quantity and quality of seeds available in their area.

Reply of Government

The Committee's recommendation that Zonal Seeds Conferences should be preceded by State level seed conferences has ben accepted and the State Governments are again being advised to hold the State level seed conferences before the half-yearly zonal seeds conferences. It may be pointed out that the Ministry of Agriculture have in the

past emphasised the need for such State level seed planning conferences in letters and meetings. Extracts from letter D.O. 12-43/74-SD dated 12-12-1974 and from the minutes of the Northern Zone Conference held on 3-7-75 are enclosed (not printed). The Projected requirements of the States which have to be met from outsider sources are then discussed at the Zonal Conferences. A very detailed proforma calling for relevant information crop and variety wise is circulated to States before the zonal conferences. A copy of the Proforma is enclosed (Not printed). The Government of India have also recently formulated a National Seeds Programme embracing all aspects of seed production from the breeders' stage to the certified seed stage, in order to meet the growing requirements of good quality seeds. Under this National Seeds Programme, 34 institutions have been identified and made responsible for the production of breeders seeds. The National Seeds Corporation will entrusted with the responsibility of assessing the requirements of foundation seeds and for producing them in the required quantities. Certified seed production will be entrusted to Seed Corporation to be set up in different States. The certified seed production by the State Seed Corporations will be organised in compact areas having the necessary infrastructure and located, as far as possible, in the vicinity of agricultural universities to ensure availability of technical guidance and supervision by the Universities. The seed corporation are being set up in those States which have the most suitable agro-climatic conditions for seed production. But while planning production of certified seeds by these seeds corporations, the seed requirements of those States who may not have seed corporations will also be taken into account. In the National Seeds Programme, the Central Government will continue to play a pivotal role. Apart from providing the necessary guidelines and sorting out difficulties in the way of successful implementation of the programme, the Ministry of Agriculture will coordinate the efforts of all the agencies involved, namely, seed producing organisations, seed certification agencies, State Governments, Agricultural Refinance Corporation and other financing agencies and will exercise control through the National Seeds Corporation over the production of certified seeds. The Ministry will continue to assess the minimum order of seed support essential for the planned production programme through holding zonal conferences and through other media at its disposal.

[Miny. of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 13, Para 2.19)

The Committee are constrained to observe that the high yielding varieties developed in respect of several food crops have, after initial success, become disease prone. The Committee under-line the need for the exercise of greater caution in releasing the new varieties for mass cultivation. The new varieties should be subjected to repeated and exacting trials and these should be released only after their proved success under ordinary conditions so as to specially save the small and marginal farmer from disastrous consequences. At the same time, the research institution concerned should keep a constant watch on the field results of the new varieties and, as soon as any disease is noticed under ordinary conditions of mass cultivation, suitable control and remedial measures should be initiated promptly. The Committee have dealt with the problem of timely availability of pesticides in a subsequent section. They, however, take another opportunity to emphasise the need for taking concerted and coordinated measures against spread of plant diseases through use of pesticides etc. Further as the average life of a high yielding variety is stated to be about five years, it should be ensured that the concerned variety is replaced in time by a more suitable variety and full publicity should be given thereto through the mass media and other means.

Reply of Government

The procedure of the release of the varieties evolved under the Coordinated Research Project of ICAR involves several steps. After years of research, Scientists develop new varieties and hybrids. The new varieties developd under Coordinated Research Project Centres located at the State Agricultural Universities and central Institutes are first tested in the State Institutes departmental experimental programmes alongwith standard checks. If the performance of these varieties is found superior to the existing commercial variety/varieties (used as checks) then these are included in the concerned Coordinated Project for their evaluation on national level.

Thus dozens of new varieties are entered every year in the Coordinated trials which are tested on different Cooperative Research Centres spread all over the country for four to five years under following three experimental stages:

(A) Initially evaluation trial; (IET)
(B) Preliminary varietal trial (PVT)
(C) Uniform varietal trial; (UVT)

conducted under low (rainfied) and high fertility (irrigated).

conditions.

In each stage new varieties are tested during one or more than one seasons to verify the results.

From the stage of Departmental State Experimental trials to the PVT stage, reaction of the varieties to the major diseases and pests forms the basic criteria for screening and their further promotion to the next stage. Alongwith yield diseases resistance is given the highest importance. Those varieties found tolerent/resistant to the major diseases and pests of the crop concerned are promoted to UVT trials. At this stage, yield is given the first priority and varieties are evaluated for judging their yield response to various level of fertility and adaptability to the topo-sequences. A few varieties found most promising under UVT trials are proposed in the next workshop for their release.

However, realising that before final release a variety must be tested among the farmers, recently a new minikit testing at the farmers fields has been introduced. The newly evolved varieties before their official release are tested on a large number of farmers' fields in different States. Final recommendation of the new varieties for commercial cultivation is made after judging the opinion of a large number of farmers from various parts of the country for the adaptability, performance, reaction to various diseases and pests and consumer acceptability of the porticular crop. Thus, to come up to the level of release a strain will have to compete with several hundred strains at various stages. During 4-5 years of testing the new varieties under-go rigorous screening under varying environmental conditions before they are released.

However, disease and pest resistance ability of a crop variety is greatly limited by envirenmental corditions and physiologic specialization in plant pathogens and pests. In a tropical country like ours, where high humidity and high temperature may prevail for a large part of the year, conducive conditions for several diseases and pests exist. Physiologic specialisation in the pathogen makes the fight between the breeder and the pathogen a continuous one. For example *wheat* is attacked by block, brown and yellow rusts, smut and *alternaria* leaf blight and nematodes; rice crop by blast, bacterial leaf blight and tungrovirus, stemborer, brown plant hoppers and glimidge. bajra by downy mildew and ergot; *maize* by stock rot and *sorghum* by downy mildew, shootfly and gallmidge etc. Each of these diseases and pests may have several virulent races and biotypes within them. Thus it is not only difficult to combine resistance to all these diseases and pests and their races and biotypes in a single variety but even if a single variety with

multiple resistance is released for an area, the appearance of new virulent races and biotypes to which the variety has no resistance may make the variety not suitable for cultivation

Diseases and pests are problems which limit the production programme not only in India but in all countries. In 1950, the sudden outbreak of biotype 15-B of black rust of wheat resulted in intensive black rust epidemics in the States of South and North Dakota, Minnesota (USA) Mexico and the Canadian province of Minitoba by which resistance of all the important wheat varieties were broken down. Immediately new wheat varieties were released but in 1952 a group of new races of black wheat rusts made their re-appearance in virulent form and necessitated a third change in wheat varieties in Maxico, U.S.A. and Canada within three years. Similarly in rice too, new diseases like bacterial leaf blight, tungro-virus and brown plant hoppers are creating a problem in rice production in Indonesia, Thailand, Burma and Philippines.

However, in India ICAR is making utmost effort to minimise the incidence of diseases and pests of crops not only by evolving resistant varieties and chemical methods of control but Scientists are keeping constant vigilance in spotting out new races and biotypes of the diseases and pests by introducing a system "Disease and pests Survelliance Programme" (presently in operation in case of wheat and rice crops). For example with breakdown of brown rust resistance in Kalyan Sona of wheat in Punjab, Haryana, Delhi and western U.P. in 1973-74 the need for diversification of varieties became obvious. Immediately in the year 1974 a group of new wheat varieties-Arjun, Pratap, Janak, Malavika, Raj 911, Shera, UP215, Shailaza were released for cultivation. Similarly in rice, varieties resistant to gallmidge Kakatiya, RPW-6-13, RPW-6-17, CR 94-MIR 1550) brown plant hopper and gallmidges and virus diseases (CR 94-MIR 1550) and bacterial leaf blight have been developed. In case of sorghum, the newly released hybrids CHS 4, CSH 5 are tolerant to shootfly. In addition one or two application of Diazanon has given good control of gallmidges of rice and sorghum, brown plant hopper and stemborer of rice. Seed treatment of Vetavax is found effective against smut and bunds of wheat, smuts of barley, sorghum and bajra.

A large number of high yielding strains with good level of resistance to existing diseases and pests in each crop are being identified. These are now in the breeders' assembly line.

Information on these new varieties and agro-techniques evolved under Coordinated Research Projects of ICAR are given to the

masses through the media of 'Minikit trials and National Demonstrations on farmers' fields, Krishi Melas; All India Radio, newspaper and farm bulletins and magazines. Besides, ICAR has proposed to set up about 50 Krishi Vigyan Kendras during Fifth Plan period to popularise the new varieties and farm techniques among the farmers and to train the farmers and extension workers in adapting new crop technology and making best use of farm inputs available with them.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75-Budget, dated 30-1-76]

Recommendation (Serial No. 14, Para 2.23)

In order to make the food production programme a success, it is necessary that good quality seeds are available in time to the farmers in all parts of the country, particularly in the remote and backward regions. In view of the fact that at present there is no statutory control over the distribution of seed, it is all the more necessary to systematise the distribution of seeds of various kinds. The Committee recommend that the Central Government may make a detailed study of seed distribution arrangements in each State and the arrangement found most successful should be recommended to the the State Governments and other seed distribution agencies for adoption. Alternatively, Government could try out composite pilot schemes for distribution of seeds and other inputs in any of the Union Territories and after successfully operating them these could be commended to the State Governments and other seed distribution agencies concerned for adoption.

Reply of Government

That it is necessary that good quality seeds are available in time to farmers in all parts of the country, particularly in the remote and backward regions, for success of the food production programme, has been recognised by the Government. Under the National Seeds Programme formulated by the Government, it is proposed to build a large network of seed retailing points in such a way that each of these points would cater to the needs of about 25 villages. A network of 20,000 dealers is proposed to be established so that each of the 5,000 community development blocks in the country will have at least four sale points. The marketing infrastructure will ensure that seeds reach farmers even in the remotest part of the country in time. The working of this network in the different States will be studied in detail as recommended by the

Committee and the arrangement found most successful will be recommended to the State Governments etc. With appropriate modifications if any, necessitated by local conditions.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75-Budget, dated 30-1-76]

Comments of the Committee

The result of the study of the seed distribution arrangements in the States and the action taken by Government in pursuance thereof may be intimated to the Committee in due course.

Recommendation (Serial No. 15, Para 2.30)

Sale of sub-standard goods is reprehensible and calls for strict preventive measures, but it is more so in the case of seed as the consequences not only affect the very livelihood of the farmers but also the overall availability of food in the country. Some special control measures are, therefore, necessary to control the menace of seed adulteration. Under a scheme approved for introduction during the Fifth Plan period, the creation of a distinct composite seed quality control inspectorate and of laboratory facilities for quality testing of seeds is proposed with the financial assistance from the Central Government. While stressing the need of expeditious implementation of the scheme, the Committee suggest that the working of the scheme in the field should be watched and reviewed in time to plug loopholes and to inprove it further. The Committee would also suggest that the efforts to increase production of quality seed should be accompanied by widespread publicity for the use of such seeds in the interest of the farmer himself as also of the nation.

Reply of Government

A scheme approved by the Planning Commission for implementation during the Fifth Plan period envisages assistance to State Governments for maintaining a cadre of inputs quality control inspectors. The scheme is awaiting the clearance of the Finance Ministry. It is expected that implementation of this scheme will start before the end of this financial year. As recommended by the Committee, the implementation of the scheme will be closely watched and reviewed from time to time.

As regards wide spread publicity for use of quality seeds, it may be mentioned that the importance of this has been accepted. Under

the National Seeds Programme, one of the important activities of the National Seeds Corporation will be to support the seed production programmes with major publicity and extension effort. For this purpose, NSC's Publicity and Extension Division is being expanded. It is also proposed to add a printing unit to the Publicity and Extension Wing of the NSC for facility in printing publicity material. Under the National Seeds Programme, the State Departments of Agriculture will be considerably relieved of the responsibility for production of seeds and its distribution and so the State Departments of Agriculture also will be able to play a more effective role in extension and publicity for the use of quality seeds.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75-Budget, dated 30-1-76]

Recommendation (Serial No. 16, Para 2.35)

The Committee note the provisions made in the Fifth Five Year Plan for the creation of facilities for seed processing and storage and for building up a reserve stock of seeds for the use during lean periods. The Committee would like Government to work out in advance the details of the various schemes meant for implementation during the Fifth Plan period and to keep a close watch so that the agencies responsible for the implementation of these programmes actually fulfil the envisaged targets in time. The Committee would also like to point out the need for proper coordination of the programme for production, processing and storage of seeds so that the slow progress of one does not affect adversely the progress of others in the interest of ensuring better and timely supply of quality seeds to farmers.

Reply of Government

The details of the various schemes meant for implementation during the Fifth Plan period have been worked out and approved by the Planning Commission. All these schemes form components of the National Seeds Programme. A close watch is being kept on the agencies like the National Seeds Corporation and State Governments responsible for the implementation of the programmes.

As regards coordination of the programmes for production, processing and storage of seeds, it may be noted that this is one of the most important aspects of the National Seeds Programme being implemented by the Government.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75-Budget, dated 30-1-76]

Recommendation (Serial No. 17, Para 2.51)

The Committee are extremely disappointed at the slow pace of implementation of major and medium irrigation schemes. They note that out of 81 major schemes and 213 medium schemes under construction in the Fourth Plan period, only 6 major and 58 medium schemes were completed and the rest spilled over to the Fifth Plan period. The reasons for slow progress are stated to be severe financial constraint, changes in scope of schemes and difficulty in acquisition of land likely to be submerged. The Committee further note that in the Fourth Plan period, an irrigation potential of 3 million hectares was created by the major and medium schemes at a cost of Rs. 1186 crores. The Draft Fifth Plan envisages the creation of a potential of 5.5 million hectares by major and medium schemes. Although the financial outlay provided therefore in the Draft Plan is Rs. 2401 crores (including Rs. 74 crores for Research and Miscellaneous), according to latest assessment the outlay would need to be increased to Rs. 3750 crores so as to achieve the physical target laid down. The programme drawn up for the Fifth Plan period accords priority to on-going schemes which can yield benefits in short-time. It is also proposed to set up monitoring organisation for the major on-going projects with a view to keep closer contact with the project authorities, ascertaining the bottlenecks and taking expeditious measures for their removal to achieve speedy completion of such projects.

The Committee have been able to glean out two major reasons for the slow implementation of the irrigation projects. (1) severe financial constraints and (2) absence of close watch on implementation of projects. As for the first, the Committee need not emphasise the importance of development of irrigation facilities for increasing the production of foodgrains and hope that under the policy of regarding the claims of agricultural growth "as a first charge on our developmental resources", the financial constraints would now be less severe.

As regards the second reason, the Committee observe that although 81 major schemes and 213 medium schemes were under construction during the Fourth Plan period, 'Review Committees' were set up to watch the progress of the schemes in respect of only 25 schemes. They also observe that although one year of the Fifth Plan period has passed by, the proposed monitoring organisations to watch the progress of the projects and to achieve their speedy completion have yet to be set up. The Committee have a feeling that if there had been a detailed and integrated planning of schemes and a proper monitoring organisation at the Central Level to watch

the progress of the schemes and to remove the bottlenecks in their speedy execution, much of the delay in the implementation of the projects would have been cut out leading to greater benefits being available to the farming community and to the nation in the shape of increased yield, particularly of foodgrains. They recommend that the proposed monitoring organisation should be set up without any further delay. They would also suggest that the procedures to be evolved for monitoring the progress in the implementation of the schemes should include the use of PERT system.

Reply of Government

The Government of India agree with the recommendation of the Committee that importance should be given to development of irrigation facilities and that the Monitoring Organisations should be set up immediately.

The programme for irrigation in the Fifth Plan is quite ambitious both in terms of outlay and additional benefits targetted. Creation of additional irrigation potential of 5 million hectares through major|medium irrigation schemes during the remaining part of the Plan is also one of the 20 points in the Economic Programme recently announced by the Prime Minister. The position has been reviewed in that context in the First Conference of State Irrigation Ministers held on 17-18 July, 1975. As a result of the recommendations made in that Conference, the State Governments have been requested:

(i) to concentrate on completing as many spill over projects as possible with work on new projects being slowed-down or deferred if necessary;

(ii) that new projects costing upto Rs. 30 crores should each be completed within five years from the date of sanction and projects costing more than that within 5 to 10 years from the date of sanction; and

(iii) that project-wise targets be laid down and necessary inputs provided.

With a view to accelerating execution of schemes, it has also been decided to set up Monitoring Organisations at the Project Level, State Level and the Central Level. The State Governments have already been requsted to set up the Organisations at Project and State Levels. The proposal for the Central Monitoring Organisation has also been drawn up and approved by the Minister of Agriculture and Irrigation and the Dy. Chairman, Planning Commission.

It is presently under consideration in the Ministry of Finance. It is hoped that the Organisation would soon come into being and start functioning with PERT as a system of evaluating progress.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Comments of the Committee

The Committee may be informed of the decision taken on the proposal for the creation of the Central Monitoring Organisation.

Recommendation (Serial No. 18, Para 2.52)

The Committee gathered an impression during their tour that a number of important irrigation schemes which can materially contribute towards increased agricultural production have not made much headway. For example, Rajasthan Canal which was started long time back has not yet been completed although it is admitted by all authorities that it can make a great impact in the matter of providing water in an area which is prone to droughts. Similar is the case with the Sarda Sahayak Canal where major earth work has been completed but not much progress has been made thereafter for lack of funds. The Committee stress that in the interest of achieving self-sufficiency in foodgrains at the earliest such projects as have great potentialities for increasing production of foodgrains should be completed on priority basis.

Reply of Government

The States have already been advised to concentrate on as many on-going schemes as possible with work on new projects being slowed down or deferred if necessary, and Monitoring Organisations at Project, State and Central Levels are also being set up to accelerate the progress of the schemes.

Possibilities of providing increased outlays for some of the projects including Rajasthan Canal and Sarda Sahayak which can yield quick benefit are also being explored.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Recommendation (Serial No. 19, Para 2.54)

The Committee note that as a result of completion of major and medium irrigation schemes at a cost of about Rs. 3,000 crores by the end of the Fourth Plan period, an irrigation potential of about

21 million hectares had been created. The actual utilisation of this irrigation potential was however 19 million hectares only. The Committee further note that a further irrigation potential of about 6 million hectares will be created from the continuing and new schemes during the Fifth Plan period. The Committee regret to observe that the irrigation potential which has already been created at such a heavy cost to the country is not being fully utilised. They need hardly emphasise that immediate steps should be taken by Government to reduce the gap between irrigation potential already created and that actually utilised. Farmers in the command areas of irrigation Projects nearing completion should be educated well in time as to the value of the project for them so that as soon as the project is completed they are ready to utilise the benefits to the full after making due payments. The Government should also initiate critical study of cases where there has been a heavy shortfall in utilisation in order to lay guidelines to prevent the occurrance of such cases. The Committee also stress the need for reduction of losses in transmission of water by attending promptly to leakages in the supply lines. It is also necessary, to educate the farmer in water utilisation so that optimum use is made of the water available.

Reply of Government (Department of Agriculture)

The question of optimum utilisation of the irrigation potential already created and that may be created in future has already been receiving consideration of the Government of India for some time past. This question has been considered by the Irrigation Commission, the National Commission on Agriculture, and the Committee of Ministers on under-utilisation of created irrigation potential.

2. It has been felt that integrated area development approach in the Irrigation commands is essential for optimum utilisation of the irrigation potential. It has, therefore, been decided to take up an integrated development programme in 51 selected irrigation commands having a culturable command area of about 13 million hectares during the Fifth Five Year Plan period with a view to optimise utilisation of the irrigation potential and to maximise the benefits from the irrigation projects. Broadly speaking the programme would cover the following:—

(i) Modernisation, maintenance and efficient operation of the Irrigation system upto the outlet of one cusec capacity.

(ii) Development & maintenance of the main & intermediate drainage.

(iii) Development of field channels and field drains within the command of each outlet.

(iv) Land levelling, on an outlet command basis for the type of irrigated crop that is to be grown.

(v) Consolidation of holdings and re-drawing of field boundaries on an outlet command basis.

(vi) Enforcement of proper system of 'Barabandi' and fair distribution of water to individual fields.

(vii) Development of groundwater to supplement surface irrigation.

(viii) Selection and introduction of suitable cropping patterns.

(ix) Supply of all inputs and services, including credit.

(x) Development of marketing and processing facilities and communications.

(xi) Preparing individual programmes of action for small farmers, marginal farmers and agricultural labour as part of the Master Plan.

(xii) Diversification of agriculture and development activities like animal husbandry, farm forestry, poultry, etc.

(xiii) Soil conservation and aforestation, where necessary.

The programme also envisages establishment of inter-disciplinary Command Area Development Authorities for each identified command area. A Plan provision of Rs. 120 crores has been made in the Central Sector of the Draft Fifth Five Year Plan, Rs. 96.63 crores in the States' Sector and an investment of Rs. 210 crores is envisaged from institutional sources. The details of steps already taken for implementing this programme have been indicated against Recommendation No. 2.55.

It will thus be observed that Government of India agree with the recommendations made by the Estimates Committee in this para and have already taken steps in the direction desired by the Committee.

Reply of Government (Department of Irrigation)

The problem of under-utilisation of irrigation potential was examined by the Committee of Ministers set up by the erstwhile Ministry of Irrigation and Power in 1972. The Committee, after

making comprehensive studies of the problem, submitted its report in June 1973. The Committee identified reasons for lag in utilisation and recommended various measures to ensure full utilisation of irrigation potential. One of the factors considered responsible for under-utilisation was the absence of a suitable administrative set-up for command area development. Command Area Development Authorities are accordingly being set up to take necessary measures to bridge the gap between potential created and its utilisation.

The Draft Fifth Five Year Plan has laid stress on measures to be adopted to minimise the loss of water and thereby augment the ultimate potential for irrigation. This is by lining of water channels, especially where water is scarce. It has been suggested that the lining of the main canals and branches should be carefully considered at the time of construction and criteria has also been laid for selective lining in the first instance, based on comparative economy.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Recommendation (Serial No. 21, Para 2.66)

The Committee consider it rather unfortunate that on account of long standing inter-State river water disputes, a number of irrigation schemes continue to remain outside the consideration zone for being taken up for implementation and the areas comprising the schemes are suffering for want of water for irrigation purposes. The Committee note that although the Inter-State Water Dispute Act 1956 provides for reference of such dispute to a Tribunal, such references have been very few and the disputes continue to remain outstanding. The Committee desire that Government should energetically pursue with the State Governments their proposal to set up a high-powered body at the national level to resolve these disputes expeditiously so as to derive full benefit from the available water resources in augmenting agricultural production. They also recommend that the proposed high-powered body should attempt to formulate a National Water Policy so as to make for integrated planning and implementation of the irrigation schemes all over the country and prepare a perspective plan for proper exploitation of water resources for agricultural purposes.

Reply of Government

Most of the rivers in India are inter-state in character and differences arise amongst the concerned States with regard to the use,

distribution or control of the waters of the inter-State rivers. As far as possible, efforts are made to resolve the water disputes by negotiations either amongst the States concerned or with the assistance of the Central Government. In the recent past, water disputes regarding Sone, Betwa etc. have been settled amicably after negotiations through the good offices of the Centre. Settlement of disputes by negotiations fosters a spirit of involvement and ultimately lead to more expeditious development of the water resources.

However, where negotiations have not resulted in amicable settlement the disputes are referrd to the Water Disputes Tribunals set up under the Inter-State Water Disputes Act of 1956. Even in these cases, efforts are being made by the Centre to evolve minimum programmes of construction of new schemes without projudice to the claims of the States, before the Tribunals.

A proposal for constituting a high powered National Water resources Council to evolve a national water policy and guide its implementation and to resolve inter-State water disputes expeditiously has been under consideration for some time. As a first step, proposals to amend some provisions in the Constitution were referred to the State Governments for their comments. While a few States expressed themselves against the amendments, most of the States felt that the scope of the amendments should be limited to disputes on inter-State waters only and that the existing powers of the States in regard to the use and control of water should continue as heretofore. It is felt that Centre should play a more active role in the use and development of the waters of inter-State rivers under the existing constitutional framework. The matter is accordingly under active consideration.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Comments of the Committee

The Committee may be informed of the final decision regarding the setting up of the National Water Resources Council.

Recommendation (Serial No. 22, Para 2.78)

It is recognised that the minor irrigation programme has the advantage that the schemes are completed quickly, the utilisation of the potential created is quick and the participation of the farmer is secured to a large extent. Yet, the total investment in the pro-

gramme during the Fourth Plan period, both public sector and institutional, was at about the same level as that on the major and medium irrigation schemes, being Rs. 1147 crores for minor irrigation and Rs. 1186 crores for major and medium irrigation projects. The public sector investment in minor irrigation schemes is severely limited and the programme depends upon institutional finance which has to be largely on individual basis. The institutional investment for minor irrigation in the Fourth Plan period is anticipated to be Rs. 625 crores (Public Sector—Rs. 773 crores; Institutional—Rs. 1462 crores; Private—Rs. 500 crores). Even with this scale of investment, the utilisation of the potential by the end of the Fifth Plan period would be only 30 million hectares as against the ultimate potential of 50 million hectares. The committee feel that there is need for closer attention being paid to the minor irrigation programme so as to achieve the maximum benefit in the shortest possible time. The progress of implementation of programme, physical as well as financial, should be closely watched and timely and the action should be taken to remove the bottlenecks in the implementation of the programme, if and when, they arise.

Reply of Government

The present problems standing in the way of accelerating implementation of the minor irrigation programme have been identified and concerted action is being taken to introduce vigorous monitoring of the programme in these critical areas at the State as well as Central level. A centrally-sponsored Scheme for strengthening the State Minor Irrigation Organisations in deficient areas has recently been approved by the Ministry of Finance. Under this scheme, 50 per cent matching grants would be made available to the States. This would enable more effective minitoring at the State level. Steps are also under way to strengthen the Central Organisation for monitering.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Recommendation (Serial No. 23, Para 2.79)

The Committee would at the same time suggest that Government should initiate a cost-benefit study in respect of minor irrigation schemes to assess the relative benefits from the investment made to facilitate policy formulation.

Reply of Government

Central Organisation such as Programme Evaluation Organisation of the Plannig Commission and National Sample Survey of the Department of Statistics who have special expertise for carrying out such studies have already covered Minor Irrigation Programmes in the past to an appreciable extent. National Sample Survey is also contemplating to take some further studies of this nature relating to Minor Irrigation. Since State Governments are primarily responsible for planning and implementation of Ground Water schemes, the suggestion is also proposed to be communicated to them.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Comments of the Committee

The suggestion of the Committee may be forwarded to the State Governments for implementation.

Recommendation (Serial No. 24, Para 2.80)

The Committee would like to point out that the renovation and major repairs to existing wells/tanks is as important as the creation of new irrigation potential. Mere statistics of newly dug wells/tanks would have no meaning unless all such wells/tanks are useable. The Committee therefore recommend that the major irrigation programme should also provide for renovation and major repairs to existing wells/tanks. In this context the Committee would suggest the creation of facilities for short term training in tubewells repairs and servicing and the encouragement of service cooperatives of technical personnel who could undertake repairs of tubewells on custom basis.

Reply of Government

The suggestion of the Estimates Committee regarding short-term training courses for repair of tubewells and encouragement of service cooperatives of technical personal who could undertake repairs of tubewells on customs basis is being communicated to the State Governments for their consideration and implementation. The suggestion is also being communicated to the Machinery Division in the Department of Agriculture who are concerned with Agro-service Centres.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3|75—Budget, dated 30-1-76]

Recommendation (Serial No. 26, Para 2.82)

The Committee recommend that, to keep a watch on the progress of the minor irrigation programme, the Land Utilisation Statistics should indicate the gross area irrigated separately in respect of major and medium irrigation schemes and minor irrigation schemes.

Reply of Government

This recommendation is fully acceptable and in fact the State Governments have already been asked by the E. & S. Directorate of this Ministry to collect and report separate figures.

The Directorate of Economics & Statistics have stated as under:--

"Information on gross area irrigated according to sources, such as canals (Government and private), tanks, wells (with break-up of tube-wells and other wells), and other sources, is now being made available by the States of Andhra Pradesh, Bihar, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra and Rajasthan. The remaining States are being persuaded to furnish this information on a regular annual basis. When this information becomes available from all the States, it would be possible to have a broad idea of the progress of gross areas irrigated by major and medium projects and the minor irrigation schemes."

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-1976]

Recommendation (Serial No. 27, Para 2.83)

Minor Irrigation largely depends on institutional finance. The figures of institutional investment on minor irrigation during 1972-73 and 1973-74 are still not available with the Government. The Committee emphasise that there should be a regular system of compiling such data so that Government have a complete picture of the achievements and are able to assess the size of the problem that has still to be tackled.

Reply of Government

Statistical information on institutional investment on minor irrigation is available in the Reserve Bank of India Bulletin "Statistical statements relating co-operative movement in India" in respect of Land Development Banks and Central Cooperative Banks. The

latest information that is available relates to the year '1972-73'. It is proposed to request that Reserve Bank of India to further out-down the time lag in the compilation of this information.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-1976]

Comments of the Committee

Before communicating the action taken, Government should have written to the Reserve Bank of India to reduce the time lag in the compilation of relevant statistics. It should be done immediately.

Recommendation (Serial No. 30, Para 2.90)

The Committee stress that the Department of Banking should keep a special watch on the role and performance of lead banks in the matter of evolving a meaninigful agricultural programme and channelising credit which now is available under the World Bank Scheme.

Reply of Government

It has been the constant endeavour of each public sector bank/ lead bank to step up its advances to priority sectors including agriculture. Commercial banks are now increasingly involving themselves in the financing of agricultural development projects assisted by the World Bank and have been playing an increasing role in areas where the co-operative structure is weak. The Department of Banking is also, in the Regional Level Consultative Committee meetings and other forums, impressing upon the public sector banks to increase their lending to the priority sector especially agriculture.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-1976]

Recommendation (Serial No. 31, Para 2.95)

The Committee note that the implementation of the Centrally sponsored scheme for strengthening of State Organisation for Minor Irrigation which was approved for implementation during the Fifth Plan, has been postponed till 1976-77. The Committee feel that for implementing the irrigation programme the technical organisation in the States needs to be strengthened. They therefore recommend that in view of the importance of the scheme, Government may reconsider its implementation at least from 1975-76. If for the reason of financial constraints it may yet not be possible to implement the

scheme, the scheme may be tried out on a pilot basis in one or two States.

Reply of Government

The Ministry of Finance have since approved the centrally sponsored scheme for a total cost of Rs. 6 crores during the Fifth Five Year Plan. The State Governments have been requested in September, 75 to prepare detailed proposals in regard to the proposed strengthening of their existing minor irrigation organisations and send to the Ministry for sanction. The same are awaited. There is an existing budget provision of Rs. 80 lacs for this scheme.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-1976]

Comments of the Committee

The State Governments may be approached, if necessary, at higher levels, to submit the schemes for strengthening of their organisations for minor irrigation and these should be implemented on an urgent basis.

Recommendation (Serial No. 32, Para 2.110)

The role of mechanisation in the development of agriculture is well known. Mechanisation, however, largely depends on the ready availability of power and diesel at economic rates. The share of the rural sector in the total power consumption in the country is at present very low, being only 13 per cent during 1973-74. For bringing the benefits of mechanisation within the easy reach of the farmer and also for achieving the targetted production of foodgrains, it is imperative that there is a sizeable increase in the availability of power in the rural sector. The Committee note that nearly Rs. 1100 crores are expected to be invested during the Fifth Plan on rural electrification programme as against the total expenditure of nearly Rs. 1250 crores during the last 23 years up to the end of the Fourth Plan period. The Committee hope that Government will now be able to undertake the rural electrification programme on a crash basis and utilise the outlay earmarked therefor for the Fifth Plan period.

Reply of Government

There are 5,66,878 villages in the country. Out of these, 1,66,680 villages (29.4 per cent) has been electrified upto June, 1975. Also

in this period, 26.62 lakh pumpsets had been energized. Haryana, Delhi, Chandigarh and Pondicherry have electrified all their villages. Tamil Nadu and Kerala are also expected to achieve this target during Fifth Plan.

In the draft Fifth Plan, it has been proposed to allocate an outlay of Rs. 1098.24 crores for rural electrification. The details are as follows:—

	Outlay	Villages	Pumpsets
			(Rs. in crores)
1. Normal programme . . .	425·91	32,549	
2. Rural Electrification Corporation . .	400·00	41,108	
3. Minimum Needs Programme . . .	272·33	36,551	15,00,000
	1,098·24	1,10,208	15,00,000

The size and content of the Fifth Plan have yet to be determined.

The following outlays were approved for rural electrification during 1974-75 and 1975-76:—

	1974-75	1975-76
		(Rs. in crores)
Normal Development programme of States . .	15·67	13·28
Rural Electrification Corporation	52·00	65·25
Minimum Needs Programme	21·53	19·33

The targets and achievement during 1974-75 are as under:

	Target	Achievement
No. of villages electrified	11,818	10,299
Pumpsets energized	1,93,639	1,92,242

The Planning Commission have indicated that based on the resources position, the total target for the country for 1975-76 would be the electrification of 13,766 villages and energization of 1,75,385 irrigation pumpsets.

Subject to the availability of funds, all efforts will be made to achieve the tragets both for electrification of villages and energization of pumpsets during the Fifth Plan period.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-1976]

Recommendation (Serial No. 33, Para 2.111)

The Committee note that during 1973-74 there were considerable imbalances in the availability of electrical power as between different States. Out of 21 States, in 6 States *viz.*, Maharashtra, Tamil Nadu, West Bengal, Uttar Pradesh, Gujarat and Karnataka, the availability exceeded 3500 kwh, the highest being 8812 kwh. in Maharashtra. The availability in the case of Bihar, Orissa and Rajasthan was, however, less than 2700 kwh. The Committee recommend that more intensive efforts should be made by Government to make power available for agricultural purposes in the States which have a potential for agricultural development so that the production of foodgrains may be maximised in these States.

Reply of Government

In the recommendations, the availability of power for the year 1973-74 has been indicated in kwh whereas, it should be in million kwh.

There has been general shortage of power in the country during the year 1973-74 and 1974-75 for various reasons, like delay in commissioning of the projects under execution, inadequate rainfall in the catchment areas of several reservoirs, non-utilisation of full installed capacity of the existing power stations due to various reasons, etc. Several steps have been initiated by the Government of India both for better utilization of the existing capacity and expeditious completion of the projects under execution. Considerable installed capacity has since been added in the country. The monsoon rains during the year 1975-76 have so far been satisfactory and, the power position is becoming comfortable. The energy availability from Thermal plants has increased. The States give priority to agricultural consumers and depending upon the relative availability of power and requirement of other categories of consumers, the demand of the agricultural sector has been met to a reasonable extent. With the increased availabilty of total power and with the addition of more electricity operated pumpsets in the country, the consumption in the agricultural sector is also anticipated to rise during 1975-76 and during the subsequent years. The targets of energisation of pumpsets and other rural connections (*e.g.* rural industrial connections, etc.) are finalised by the Planning Commission, after taking into account the potential for agricultural development in the particular State, the work already done in regard to energisation of pumpsets and availability of power.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dt. 30-1-1976]

Recommendation (Serial No. 34, Para 2.112)

The Committee also note that in 5 States *viz.*, Haryana, Tamil Nadu, Punjab, Andhra Pradesh and Rajasthan the consumption of electricity for agricultural purposes during 1973-74 was more than 20 per cent, the highest percentage being 37.7 in the case of Haryana. In 12 States, it was less than 6 per cent. In Bihar, it was 2.8 per cent while in the States of Assam and Meghalaya, Himachal Pradesh, Orissa and West Bengal it was less than 1 per cent. The Committee recommend that Government should take concerted measures with the assistance of Rural Electrification Corporation, State Electricity Boards, etc. so that large percentage of power becomes available in rural areas for being put to use in the interest of stepping up agricultural production.

Reply of Government

As pointed out by the Committee, there are a number of States where the percentage of agricultural consumption to the total consumption is less than 6. The main reasons for less agricultural consumption in these States are indicated on page 81 of the Report. Efforts have already been initiated to increase the pace of rural electrification in these States. The Government of India set up a committee on Rural Electrification (mentioned in Para 2.103, p. 84 of the Report) which has submitted its Report in March, 1975. The Committee have made several recommendations for increasing the pace of rural electrification. This report has been forwarded to the States of Eastern and North-Eastern Region, as well as to the remaining States and Union Territories, for implementation of the recommendations which are of general nature and which may pertain to those States as well. It is hoped that with the implementation of these recommendations, considerable improvement will result in the rural electrification programme and agricultural consumption.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dt. 30-1-1976]

Recommendation (Serial No. 35, Para 2.113)

The Committee need hardly stress that power should be made available on assured basis so that the farmer can rely on it for use in their pumpsets, agricultural machines, etc.

Reply of Government

The power supply position at present is satisfactory except for marginal shortages in a few States. Due to good monsoons hydel generation has picked up considerably and due to better maintenance and monitoring, thermal Power Stations are producing approximately 13 per cent more energy than that produced by them during the same period last year. The Government of India had set up a Committee to examine the difficulties faced by agriculturists and other consumers in the rural areas in the matter of electric power supply and suggest remedial measures. The Committee have made a number of recommendations on various aspects like service connections, technical difficulties, tariff and allied matters, billing, etc. These recommendations have been forwarded to the State Governments for implementation. It is hoped that with the implementation of these recommendations, the rural power supply position will improve.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dt. 30-1-1976]

Recommendation (Serial No. 36, Para 2.114)

To encourage the use of power, Government may retain a reasonable rate. It has, however, been represented to the Committee that in some States there is a system of charging a flat rate for power consumption for pumpsets, etc., irrespective of the fact whether the power is made available on a regular or intermittent basis. The Committee would like Government to fully go into the matter and take suitable remedial measures so as to remove the cause of this feeling.

Reply of Government

Flat rates are charged in two ways by the State Electricity Boards. Firstly, there is a flat rate with unmetered supply to agricultural consumers where the charges are based on rated capacity (H.P.) of the motor irrespective of actual consumption. This type of flat rate system (unmetered) supply was prevailing only in Punjab and has since been abolished. The other is a metered supply tariff where there are energy charges based on actual energy consumption and also levy minimum charges or minimum consumption guarantee based on rated capacity (H.P) of the motor. This aspect has been examined in detail by a Committee set up by the Government of India to examine the difficulties faced by agriculturists and

other consumers in the rural areas in the matter of electric power supply and suggest remedial measures. They have, *inter-alia,* made the following recommendations:

> "The Committee is of the view that minimum consumption guarantee|minimum charge|flat rate charges per H.P. where in force should not be charged for the periods for which the consumers are not able to utilise their pump-sets due to reasons attributable to nature such as drought, floods, wells going dry, etc. For reasons attributable to the consumers, such remission is not justifiable. However, if electricity is not available to the consumers for long durations for reasons attributable to Boards, such as theft of transmission line wires or sub-station material, break-downs, etc. where the period of such discontinuation is one month or more, the above mentioned charges may be remitted for the period of non-supply. However, no such remission can be allowed in case of rostering which results due to power shortage or due to system conditions. The Boards may allow some relaxation or deferment in realisation of revenue for the periods of difficulty in all cases enumerated above, whenever approached by the consumers, and this fact may be given wide publicity."

The Committee have also made several other recommendations in regard to tariff, billing and other allied matters. These recommenadtions have been examined in this Ministry and forwarded to the State Governments for implementation. They are being reminded to intimate the action taken by them for implementing the various recommendations. The situation is likely to improve after these are implemented.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dt. 30-1-1976]

Recommendation (Serial No. 37, Para 3.11)

The Committee note that, despite the appointment of several committees, it has not been possible for the Government to arrive at an agreed formula for assessing the requirements of fertilizers of the States. These requirements continue to be computed from season to season by adopting different criteria. The Committee are given to understand that the main reason for this situation is the divergent view-points as expressed by the comparatively developed States and the developing States in this regard. The Committee

consider that it should be possible for the Central Government to assess the requirements of fertilizers of the State Governments on the basis of their production programmes for the various crops during the year, the facilities like irrigated areas, high yielding varieties of seed etc. available and their capacity to utilise the fertilizers. The Committee, therefore, recommend that Governmnt should assess the overall demand for fertilizers in the country on the basis of the approved programme for agricultural production by the various States and meet the same through domestic production to the maximum extent possible and the balance by import, only where necessary.

Reply of Government

The Government has introduced production linkage method for assessing the requirement of fertilizers of States and Union Territories from Rabi, 1973-74. In this method the fertilizer requirements of each State are assessed in relation to the crop-wise area in their agriculture production programme, the level of fertilizer application achieved by the State in the past and a further increase on the dosage rate in future. While determining the increment in dosage rate for different States a graded system of increment with higher increment to the developing States is adopted. This system has been found to be quite scientific and has worked quite satisfactorily. A detailed Note indicating the method used is placed at Annexure A.

2. It may be recalled that the scarcity of fertilizers developed acutely from 1973 onwards. Every State Government guided by shortage psychosis were very keen to have the maximum quantity of fertilizers irrespective of their agricultural production programme or their level of consumption already achieved. As soon as the situation of shortage changed into easy availability the State Governments realised that the quantity of fertilizers needed should be directly linked with the production programme and the level of application achieved in the State. The production linkage method

fully take cognisance of these two factors. Over and above it also tries to minimise the regional imbalances in the use of fertilizers by working out varying incremental rates for different States as mentioned above.

3. It would be seen that the production linkage method meets fully the recommendations of the Committee. This method envisages the assessment of fertilizer requirements on the basis of the agricultural production programme approved by the Planning Commission, which automatically takes into account the areas under high yielding varieties of seeds and irrigation. The standard doses of fertilizers applicable to different crops in different States are worked out on the basis of the maximum consumption of fertilizers achieved in the State. Thus the level of consumption is also given due consideration in the method followed by the Ministry of Agriculture at present. Moreover, in order to boost the consumption of fertilizers in different States particularly the State with very low consumption of fertilizers various rates of increments varying from 5 to 20 per cent are given over the assessed requirement.

ANNEXURE

A NOTE ON THE PRODUCTION LINKAGE METHOD OF ASSESSMENT OF FERTILIZER REQUIREMENTS

The method consists of the following steps. (It has been assumed that the assessment is required for the season Rabi 1973-74).

1. Selection of the best fertilizer consumption season in the State, since 1969-70.

2. Standardisation of the area under different crops in State for this year. The standardisation is done by converting the area under different crops figures into area under one crop. For instance if a State grows, HYV Wheat, Local Wheat, HYV Bajra, Local Bajra, Sugarcane, Potatoes and

Cotton the area under these various crops would be reduced into one area, say area under HYV Wheat. The conversion is achieved by assuming certain conversion ratios, based on recommended doses. Thus it is assumed that if HYV Wheat requires one unit of fertilizers, non-HYV Wheat will take ½ unit, Cotton will require 1 unit, HYV Bajra ½ unit and Local Bajra ¼ unit etc. the standardised areas of different crops are added to arrive at one figure.

3. Calculation of the average dose. The average dose is calculated by dividing the consumption as at (1) above by the area as at (2) above.

4. On the average dose thus calculated, a 5 per cent increase is granted for each season. Thus if the average dose has been calculated for Rabi 1970-71 season 5 per cent increase is given for Rabi 1971-72, another 5 per cent Rabi 1972-73 and yet another 5 per cent for Rabi 1973-74. Thus the revised dose for the season under consideration is worked out.

5. The revised dose is multiplied by the standardised area for Rabi 1973-74. And thus the requirements for Rabi 1973-74 season are worked out.

6. However, in case for a State, Rabi 1972-73 season happens to be the best season, the State is granted yet another 5 per cent increase over the requirements worked out at (5) above. This is because during Rabi, 1972-73 season there was shortage in the availability of fertilizers. If more fertilizers were available, the consumption would have been comparatively more.

7. Comparatively backward States are accorded a higher rate of increase in the dosage rate to enable them to gradually catch up with the progressive States.

The States are grouped in 8 classes with the percentage increase in average dose rate varying from 5 per cent to 20 per cent for these 9 classes. (Classification follows)—

CLASSIFICATION

1. Pondicherry & Punjab .	5%
2. Chandigarh & Tamil Nadu	6%
3. Delhi	8%
4. Andhra Pradesh, Kerala and Uttar Pradesh	11%
5. Gujarat, Haryana and Goa	13%
6. Karnataka and West Bengal .	14%
7. Maharashtra and Bihar .	16%
8. Jammu & Kashmir, Himachal Pradesh, Orissa and Madhya Pradesh	17%
9. Rajasthan, Manipur, Assam, Tripura and others .	20%

[Miny. of Agri. and Irrigation (Deptt. of Agri.), O.M. No. 2-3|75-Budget, dated 30-1-1976].

Recommendation (Serial No. 38, Para 3.12)

The Committee note that even at the stage of allotment and actual supplies of fertilisers to the States, certain weightages are being given and supplies are redirected on various considerations which, according to Government's own admission, result in imbalances as between different States. While the Committee appreciate that the actual supplies of fertilisers have to depend upon their availability by domestic production and import they feel that after the requirements of States have been assessed, any system of weightages or reduction the supplies at the stage of actual distribution of available supplies run counter to the principle of equitable distribution. A fair system would, in the opinion of the Committee, be to set apart, out of the available quantity of fertilisers, a certain portion for meeting unforeseen requirements of any State and the rest

being distributed, as far as possible, proportionately between different States on the basis of their assessed requirements linked to agricultural production programmes. The Committee stress that a close watch should be kept at the Centre on the progress made in the field in the matter of implementation of agricultural production programme so as to see that the physical availability of fertilisers matches the requirements. In any case before reallocating the fertilisers from one State to another the Government should specially see that it would not in any way adversely affect the on-going programmes of agriculture production.

Reply of Government

Weightages and priorities in allotment and supply of fertiliser cannot be totally avoided. For example, in a time of shortage of fertiliser coupled with inadequate level of foodgrains buffer stocks for the public distribution system in the country, the Government have to ensure such use of the available fertiliser as would be most conducive to maintaining the food economy of the country and thus serve the overall national interests in the best possible manner. This purpose, it will be appreciated, cannot always be served by merely ensuring "proportionate" supplies in a purely "mechanistic" way. This policy of the Government has been vindicated by the experience of a number of years. However, the Government have no objection to the operative part of the Committee's recommendations that supplies to different States may, *as far as possible*, be arranged proportionate to their requirements.

As far as "re-allocation" of fertilisers from one State to another is concerned, apart from the question of priorities and weightages mentioned above, normally no re-allocation from one State to another is done without the consent of the States concerned.

It may be added that, in any case, the policy of the Government is to keep sufficient buffer stocks of fertilisers in the Central Fertiliser Pool to prevent a situation of shortage, and thus avoid altogether the need for any weightages or priorities. At present, for example, the Government have succeeded in building up sufficient fertiliser buffer stocks and the availability position is very comfortable.

[Miny. of Agri. and Irrigation (Deptt. of Agri.), O.M. No. 2-3|75-Budget, dated 30-1-1976].

Recommendation (Serial No. 41, Para 3.26)

The Committee are concerned to note that as a result of a consistent run on the reserve stock of fertilisers during the Fourth Plan, the stock built up to the level of 1.1 million tonnes in 1970-71, was reduced to 3.5 lakhs tonnes only by 1973-74. They, however, appreciate the policy decision of the Government to maintain a reserve stock of fertilisers to the extent of about 20 per cent of the requirement. The Committee recommend that to build up buffer stock of fertilisers, Government should plan their purchases from the international market at the most propitious time taking, if necessary, the help of Food and Agriculture Organisation and other International organisations.

Reply of Government

Steps have already been taken by the Government to build up sizeable buffer stocks of Pool fertilisers to enable us to make supply to the cultivator at short notice and also to improve our bargaining position in the World Market. The importing agency, *viz.*, the Minerals & Metals Trading Corporation Ltd., collects market intelligence on fertiliser prices and availability in the international market from time to time and on the basis of this information and taking into account the requirements of fertiliser imports for the country, purchases are made at a time most favourable to India. When the prices of fertilisers in the international market shot up considerably during 1972—74, this matter was taken up in the various forums, including the Food and Agriculture Organisation of the United Nations and the need for fixing prices of fertilisers at more realistic level emphasised. India has received 37500 tonnes of fertilisers so far under the International Fertiliser Supply Scheme.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dt. 30-1-76]

Recommendation (Serial No. 42, Para 3.29)

The Committee note that almost 75 per cent of the fertilisers available in the country from domestic production and imports are being distributed through institutionalised and public channels under the control and supervision of the State Governments. Under such a

system, normally there should be no complaint of maldistribution or black marketing. However, as there have been complaints about the distribution system introduced by the States, the Committee desire that the need for a periodical review of the distribution system should be emphasised upon the State Governments with a view to make sure that no malpractices creep in and so ensure ready availability to the farmers. In this context, the Committee would suggest that Central Government may work out a model distribution system and commend it to the State for adoption according to local conditions.

Reply of Government

Present Distribution system.

Fertilisers used in the country come from domestic manufacturers as well as from imports.

As far as imported fertilisers are concerned, these are handled by the Central Fertiliser Pool operated by the Union Ministry of Agriculture and Irrigation. The allotments of Pool Fertilisers are made only in favour of State Governments (except for small quantities in favour of certain Government commodity Boards pertaining to some of the export-oriented commodities). The State Governments have been instructed to distribute all the fertilisers allotted to them through cooperatives and other institutional agencies (except for small quantities of seeding material imported specially for certain manufacturers for the Seeding or Marketing Development Programme in whose case the allotment is made in favour of the State Governments with the instructions that it may be reallotted to the Seeding Programme manufacturers after indicating the crop and area where the State Government would like it to be distributed as small quantity required by granulary mixing unit. As far as indigenously produced fertilisers are concerned, the internal distribution within a State is left to the domestic manufacturers. However, in order to ensure equitable distribution of all available fertilisers including imported fertiliser, the Ministry of Agriculture draws up a coordinated over-all supply plan for the country as a whole. The requirements of the States are assessed before each cropping season *viz.* Kharif and Rabi, in the Zonal Conferences on fertilisers. The Conferences are attended by the representatives of the different States and the requirements of the States are assessed on the basis of their production programme and an increase over the levels of application achieved in the previous seasons.

After having assessed the requirements, the supply plans of the States are finalised. For this purpose, the representatives of the manufacturers are also invited to the Conferences. The manufacturers are asked to commit the quantities of fertilisers that they propose to distribute to the different States. On this basis the total quantities of fertilisers that a State has to receive from different manufacturers are calculated. The balance of the requirements are registered as deficit with the Central Fertiliser Pool, and are met form the imported stocks, depending upon the availability of fertilisers from imports.

As far as the commitments of manufacturers to the States are concerned, these are covered by Orders issued under the Essential Commodities Act and thus make it legally binding on the suppliers to distribute the indicated quantities in these States. This is further ensured by the Fertilisers Movement Control Order which prevents unauthorised movement of fertilisers from one State to another.

It may be mentioned that while making allotments, it is ensured that the manufacturers commit their supplies only to the States which do not involve long haulage and cross movement of railways. This is done to ensure speedy movement and save on railway transportation.

The Ministry of Agriculture issues allotments of Pool fertilisers in favour of State Governments and Commodity Boards every quarter. On receipt of these allotments, the State Governments and Commodity Boards either re-allot the fertiliser to agencies of their choice or indicate the consignees to whom the fertiliser is to be despatched by the supplying agencies of the Central Fertiliser Pool, namely the Food Corporation of India at the Ports and the Central/State Warehousing Corporation in the interior deports. As far as imported potassic fertiliser is concerned, the distribution is made by M/s. India Potash Ltd. an organisation controlled by the cooperatives and public sector companies. Thus it can definitely be said that all possible cares have been taken against the mal-distribution of imported fertilisers.

With a view to ensuring efficient implementation of the overall supply plan of imported and domestic fertilisers drawn up in Zonal Conferences, the Ministry of Agriculture also coordinates with the Railway Board the provision of rail transport on priority basis to fertiliser moving from the ports and factories. For this purpose, the Ministry of Agriculture give to the Railway Board a monthly programme of the requirement of wagons at different Ports and also hold

jointly with the Railway Board and the Fertiliser Industry a Quarterly Programme Meeting every three months to work out the detailed plan for priority movement of fertilisers from different factories to various States.

Distribution through Institutional Agencies.

The internal distribution within a State is the responsibility of the State Governments. However, it is the policy of the Government to encourage to the maximum possible extent, distribution of fertilisers to farmers through public agencies like cooperatives and Agro-Industries Corporation etc. As stated above, in respect of imported fertilisers the State Governments have been asked to distribute them through departmental agencies, cooperatives and other institutional agencies only. In respect of the indigenously producted fertilisers, through the manufacturers have the freedom of marketing within the State(s) indicated in the E.C.A. Order, referred to above, effort are being made to persuade them to distribute as much quantites as possible through institutional agencies. The Fertiliser Corporation of India, the biggest manufacturer of fertilisers in the country, decided to market a minimum of 50 per cent of the quantities of fertiliser specified under the releveant Essential Commodities Act Order to the State Governments for further distribution through cooperatives and other institutional agencies. Over all, therefore, about 70 per cent of all fertilisers, both imported and domestic, is at present being distributed through cooperatives, Agro-industries Corporation and other institutional agencies, which are under the direct control of the State Governments. It may also be added that even in respect of fertilisers distributed by the manufacturers through private distributers under an informal arrangement with the industry the State Governments have also been given the discretion to indicate the area within the State where the fertiliser only be distributed.

It will thus be seen that, with all the regulatory measures and a well-streamlined system of distribution for fertilisers Government is keeping a close control over the distribution, marketing, movement and pricing of fertilisers. The distribution system is constantly under review and improvements are made in it as and when required.

It may also be mentioned that in 1974 when a number of States like Uttar Pradesh, Tamil Nadu, Andhra Pradesh, Karnataka introduced card/permit system for controlling distribution of fertilisers and it was found that this proved to be a bottleneck in the smooth distribution of fertilisers, the matter was immediately taken up with the State Governments concerned and the controls were either completely withdrawn or reduced to such an extent that they no longer

served as a bottleneck on the smooth offtake of fertilisers. Steps have also been taken to ensure that sufficient quantities of fertilisers are available at all the distribution points in the country. The State Governments have been requested to obtain a certificate to this effect from the District Magistrates. The Government of India is continually urging the State Governments to exercise the powers vested in them to prevent and punish all mal-practices connected with fertilisers.

Recommendation (Serial No. 43, Para 3.32)

The Committee consider that the present level of fertiliser prices in the country are very high and act as a disincentive to their use, affecting adversely the agricultural production. For most of the farmers, particularly small and marginal farmers, fertilisers has now become out of reach. This would obviously affect their contribution in the overall effort for higher production of foodgrains in the country. The Committee recommend that Government may consider the feasibility of introducing a scheme for making available fertilisers at subsidised rates at least to small marginal farmers for production of foodgrains.

Reply of Government

The fertiliser prices were to be increased in 1974 because of the high import cost. Since then the Government was constantly keeping a watch over the consumption trend of fertilisers. The Government took corrective action as soon as a declining trend in the consumption of fertilisers was noticed and as soon as it was established that the prices are acting as an impediment towards the consumption of fertilisers. As a result of the initiative of the Department of Agriculture the prices of different fertilisers were reduced from 18th July, 1975. The reduction in prices though boosted up the consumption of nitrogen nutrient, did not have the desired impact on the consumption of phosphatic and potassic fertilisers. The Government, therefore, have again reduced the prices of phosphatic, potassic and complex fertilisers with effect from 1st of December, 1975. With this reduction, the fertiliser prices are not likely to work as a disincentive for the farmers. Even before the price reduction, Government had worked out a scheme of subsidy on the use of fertilisers for marginal farmers, having a holding of 2.5 acres. The subsidy consists in 33-1/3 per cent of the actual cost of fertilisers, seeds and pesticides

subject to a maximum of Rs. 100 per season and Rs. 200 spread over two seasons in one year or two years. This has been permitted only as an incentive to such marginal farmers as take up cultivation of high yielding varieties or new crops for the first time.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 44, Para 3.35)

For the success of the programme for development of production of foodgrains, it is necessary that the Agricultural inputs made available to the farmers conform to standard quality. The Committee are disturbed to note that in the wake of scarcity and high prices of fertilisers, adulteration has become a widespread menace. This has obviously to be effectively checked and eradicated completely. The Committee are surprised that although one full year of the Fifth Plan has passed, the Centrally Sponsored Scheme for Quality Control of inputs which was programmed for implementation during the Fifth Plan period has not yet been finally cleared by the Expenditure Finance Committee. The Committee would stress the need for early decision being taken on the Scheme to ensure quality control of agricultural inputs. Pending establishment of the machinery for quality control, the Committee desire that it should be made binding on all the indigenous manufacturers of fertilisers to ensure that their sale agencies supply fertilisers of standard quality and free from adulteration to the farmers. Government should also tighten their existing agricultural machinery in the field to see that the evil of adulteration of fertilisers and other agricultural inputs is effectively checked.

Reply of Government

The Centrally Sponsored Scheme for Quality Control of inputs was accorded initially priority of the B Category by the Planning Commission. However, as a result of the efforts made by the Department of Agriculture, the Planning Commission has now agreed to approve the Plan for the current year provided funds are found. Accordingly, this Department located certain funds by modifying certain other schemes and have sent a detailed proposal to the Ministry of Finance for final clearance. Pending, however, the launching of Quality Control Laboratories, the Ministry of Agriculture has impressed time and again on the State Governments the need to have a proper vigil in this regard. The State Governments have been

given adequate powers to deal with the cases of adulteration and the Fertiliser Control Order has been declared a Special Order under the Essential Commodities Act. The Department of Agriculture is also monitering the action taken by the State Governments in checking adulteration by calling for periodical reports. On the basis of the reports, instructions are issued to the State Governments from time to time. Apart from this, the Ministry of Agriculture has also requested the Ministry of Petroleum and Chemicals to impress upon the indigenous manufacturers to be particular about the supply of standard fertilisers to the farmers. Since the standard specifications of the fertilisers manufactured or sold in India are given in the Fertiliser Control Order, an order made under Essential Commodities Act; the sale of sub-standard fertilisers would be a violation of that order and as such a cognizable offence. This also deters the sellers of fertilisers to pass on sub-standard fertilisers to the farmers. Moreover, the Fertiliser Control Order has also been amended in July, 1974 making it ompulsory for a dealer to produce a certificate from the manufacturer/Commodity Board/State Government whom he intends to represent while applying for registration for new dealership or while applying for the renewal of dealership licence. This provision works as a constant check on the dealers and restrains them from passing on sub-standard material to the farmers.

[Ministry of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-76]

Recommendation (Serial No. 45, Para 3.40)

In view of the wide gap between the requirement and availability of chemical fertilisers and their high prices in the international as well as domestic market, the Committee-appreciate the ambitious programme envisaged for implementation during the Fifth Plan period for the production and popularisation of the use of rural and urban Compost and the utilisation of city sewage and sullage to get over the problem of shortage of chemical fertilisers. They note that the above programme will result in making available Plant nutrients (NPK) totalling about 6 million tonnes by the end of the Fifth Plan. The Committee trust that the various programme for inreasing production of organic fertilisers during the Fifth Plan would be energetically implemented and adequate publicity would be given to the use of organic fertilisers by undertaking demonstration and communication programmes through *mass-media* suitably designed to catch the imagination of the farmers. Committee also recommend that these production and publicity programmes should be kept under-constant review so as to take timely action to get over the

problems that may be encountered in the implementation of the programmes.

Reply of Government

Development of local manurial resources has been an important activity of this Ministry in the past plan periods. In view of present fertiliser situation, a comprehensive programme for larger production and use of organic manures both in rural and urban areas, with the objective of supplementing Plant nutrients supply is being implemented. The programme has a financial outlay of Rs. 9 crores in the central sector and an equal outlay in State plans. The target is to produce about 240 million tonnes of rural compost and 5.2 million tonnes of urban compost during 1975-76 and to raised it to 350 and 7.5 million tonnes a year respectively by the end of the 5th Five Year Plan period. Green Manuring programme is also being intensified to the extent possible. It is also planned to tap the potential of sewage|sullage for irrigation purposes on a larger scale. The State Govts. have been advised to organise special compaigns twice a year synchronising with Kharif and Ravi seasons for Massive production and use of organic manures. Major programme and achievement under the Integrated Scheme for Development of Local Manurial Resources during the plan periods is as under:—

(a) Setting up of 27 Mechanical compost plants in the cities having population of 3 lakhs or above. One such plant has already started its operation on full-scale recently. During the year 1975-76, six more plants have been granted administrative approval. Subsidy at 33 per cent on capital cost is being given by the Govt. of India.

(b) Implementation of about 200 sewage/sullage utilisation schemes. Under the programme 30 schemes were sanctioned during 1974-75. During the current year 95 schemes have been accorded administrative approval. In addition to this approval for 11 more schemes are under issue. Subsidy at the rate of 33 per cent on capital cost is being given by the Govt. of India.

(c) Setting up of 100,000 gobar gas plants in the country, 9418 plants have been completed during 1974-75. During the current year (1975-76) 25000 plants will be installed. It has been decided to continue the central financial assistance for these plants throughout the 5th plan period in a tapering way. Subsidy for the plants set up/to be set up

in the 1st two years is being given at the rate of 25 per cent of the Capital Cost.

2. As publicity and promotional measures following steps have been taken:—

(a) Award of prizes to local bodies and gram-panchayats for doing excellent compost work. During 1974-75 no prize was given. Prize will be awarded during 1975-76.

(b) Organisation of 200 demonstration-*cum*-training camps each year. 135 camps were organised during 1974-75. Rs. 200 per camp is being given to Farmers Associations by the Govt. of India.

(c) Due publicity is being given to the programme through mass media for motivating and mobilising opinion of the public and the farmers through:—

(i) Advertisements in the newspapers on compost making.

(ii) Radio-Spots.

(iii) Special programmes on composting and gobar gas plants on the television.

(iv) Advertisement on postal stationery-special post-cards bearing slogan, "Compost Khad daliye paidawar badhaiye" (use compost for higher yields) have been brought out by P & T Department.

(d) Compost-weeks compaigns are also being arranged by the State twice a year as a "People's Programme" regularly.

(e) Training is being imparted to the farmers in the techniques of scientific composting at the Farmers Training Centres spread throughout the country. The State Govts. have also been advised to arrange in service training/refresher courses for the compost Inspectors, Extension Officers and the State level workers.

(f) Following publications have been brought out by the Directorate of extension of the Department of Agriculture:—

(i) Posters on 'How to make compost'.

(ii) Leaflets on compost preparation.

(iii) Leaflets on cow dunk gas plants.

Slides have also been prepared on compost making for screening on a wide scale.

[Min. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 46, Para 3.41)

The Committee would also like Government to pay greater attention to the development of green manures and the popularisation of its use in areas where multiple cropping system does not exist.

Reply of Government

The Ministry is giving due attention to the development and popularisation of green manuring. In areas of multiple cropping, the purpose of green manuring could best be served by including a short duration leguminous crop in crop rotation. Besides this, the use of foliage and cloppings of various types of wild and semi wild trees/plants is being popularised for green leaf manuring.

[Min. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 47, Para 3.63)

Plant Protection chemicals play as important a role in agricultural production as other inputs like high yielding seeds, fertilizers, etc. To reap the benefits of the new varieties of seed and other inputs, it is necessary to save the crops from plant pests. Moreover, in the context of rising demand for food and food production in the country having not kept pace with it, the importance of minimising losses on account of plant pests and diseases, which are currently estimated to be of the orders of 20 per cent of the total production, cannot be over-emphasised. The Committee consider that plant Protection schemes are even more important than others, as plant diseases destroy the crops after heavy investments on seeds, fertilizers and irrigation have already been made thereon. They recommend that, in order to reap full benefit from huge investments made for the development of agriculture in terms of inputs, plant protection services, both preventive and curative, should be further intensified and their coverage should be increased, so that the benefit of these services accrues to the largest number of farmers. At the same time, it is very necessary that the various plant protection schemes undertaken at the expense of the Central Exchequer, are kept under

constant watch and periodical evaluation so as to assess their impact in the field and ensure that the resources spent on them are commensurate with the benefits.

Reply of Government

Plant Protection services are being expanded considerably during the Fifth Plan period. The number of pests and diseases surveillance stations and plant quarantine and fumigation stations are being increased by seven and three respectively, and all the stations are being strengthened. A Central Insecticide Laboratory is also proposed to be set up in this period. A new scheme for the control of five major pests *viz.* white grub, brown plant hopper, apple scab, jowar midge and rodents is being implemented with effect from 1976-77. The Agricultural Aviation Organisation is also being expanded. At the same time, emphasis is being placed on periodic review and evaluation of the impact in the field as for instance in the scheme for control of pests in endemic areas.

[Min. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 48, Para 3.64)

The Committee would further like to stress that plant protection schemes should pay greater attention to the requirements of small farmers who constitute the majority and who are generally not aware of such schemes and thus do not derive full benefit from them. It is imperative that special attention is paid to the needs of small and marginal farmers and their crops programme/protected from pests and diseases. The Committee would like to be informed of concrete action taken in the field in pursuance of this objective.

Reply of Government

Special attention is being paid to the plant protection needs of the small farmers and marginal farmer within the SFDA|MFAL projects taken up in different parts of the country. During the 4th Plan 87 such projects had been taken up. In the Fifth Plan the number of projects has been raised to 160. Small and marginal farmers within the project areas are being given subsidy of Rs. 200 for 2 seasons on inputs which include pesticides also. In addition subsidy is also provided to the extent of 25 per cent for small farmers and 33 1/3 per cent to marginal farmers on customs service whenever State Agriculture Department or the Agro Industries Corporations organise plant protection measures. The Committee's observations

have been noted and the State Governments are being advised to pay greater attention to the requirements of small farmers in other areas also and to direct their extension efforts more towards the small farmers.

[Min. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 49, Para 3.65)

The entire plant protection schemes of the Central and the State Governments depend upon the timely availability of pesticides at reasonable prices. Yet, until the end of the Fourth Plan period, Government had no system of assessing the requirements of pesticides/insecticides and the availability of this commodity was being arranged in an *ad hoc* manner. The Committee feel that the problem of shortage of pesticides and consequent rise in their prices noticed after 1972-73, would not have been so acute, had Government realistically projected the requirements of pesticides keeping in view the diverse pressures on the market and import limitations and taken timely measures to overcome it by increasing indigenous production and/or imports.

Reply of Government

It may be stated that the Ministry of Agriculture and Irrigation has been convening Annual Plant Protection Conferences in which the representatives of the State Governments, the Pesticide Association of India, Ministry of Petroleum and Chemicals and Directorate General of Technical Development participate. The requirements of all State Governments of various pesticides in terms of technical grade material with reference to the crop production and protection programmes to be undertaken by them are obtained in advance as in the enclosed proforma (not printed). While finalising the requirements, the expected availability from indigenous sources of production is taken into account and the quantities of pesticides to be imported are also decided upon.

In 1972-73, the shortage of pesticide had occured due to various factors as under:—

(i) General world shortage of pesticides;

(ii) Hike in petrol prices with the result that the prices of petroleum based chemicals had spurted a great deal;

(iii) General power shortages in the country which affected expected indigenous production; and

(iv) Non-availability of important ingredients like Benzene and Chlorine.

It may be added that prior to 1972-73, pesticide availability for undertaking plant protection programmes did not pose any problem. From 1974-75, the availability of pesticide improved and there is, at present, no shortage. It may also be noted that with the introduction of the system of allocation of 50 per cent of indigenous production of some important and popular pesticides through the State Governments to pesticide formulators nominated by them has helped in making available in time the required quantities of pesticides for important plant protection programmes.

Efforts are being continuously made to project the requirements more and more realistically. The Government have recently set up a committee under the Chairmanship of Dr. B. D. Tilak, Director, National Chemical Laboratory, to go into the various aspects of pesticides industry. One of the tasks of this committee is to make a realistic projection of requirements of pesticides for the next few years.

[Min of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 50, Para 3.66)

The Committee note that imports of pesticides increased from Rs. 2 crores in 1969-70 to Rs. 9 crores in 1973-74 and that the total imports during the Fourth Plan period amounted to over Rs. 30 crores. They further note that by the end of the Fifth Plan period, the annual import bill for technical grade material and pesticides would amount to Rs. 19 crores for the year 1978-79 and that total estimated imports of Pesticides during the Fifth Plan period as a whole, would be of the order of over Rs. 115 crores. The Committee, therefore, underline the need for making maximum efforts to increase the indigenous production of technical grade material and pesticides which are at present being imported. Government should undertake a detailed exercise as regards the capacity required to establish production according to the needs of the country and give adequate publicity to it so as to attract prospective entrepreneurs who could take up production of technical grade material and pesticides within the country on emergent basis. Expeditious decisions should be taken on applications for the issue of industrial licences

for establishing the required capacities and a constant watch should be kept so that the capacities licensed, actually fructify within the time limits laid down therefor.

Reply of Government

Presently, a Study Group on Pesticides under the chairmanship efforts to be made to ensure maximum self-reliance in the field of pesticides is accepted.

Presently, a Study Group on Pesticides under the chairmanship of Prof. B. D. Tilak, Director, National Chemical Laboratory, is reviewing *inter alia* the demand estimates of pesticides during the Fifth Plan period, areas of technology development and other aspects relating to the development of pesticides industry. The areas where further capacity should be developed to meet adequately the requirements of plant protection and public health would be given appropriate publicity after the Study Group's report becomes available.

Procedures for the consideration and disposal of applications from prospective entrepreneurs for grant of industrial licences have also been suitably streamlined to facilitate their expeditious disposal.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 51, Para 3.67)

The intensity of plant protection service has to vary according to the incidence of the pest infestation and disease. Government should, therefore, have adequate stock of certain commonly used pesticides/insecticides for use during emergencies. The Committee recommend well proven pesticides of a modest size to meet the emergent requirements of the Central Schemes and of the State Governments.

Reply of Government

The recommendation of the Committee is accepted. The feasibility of maintaining a buffer stock of well-proven pesticides is being examined.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Comments of the Committee

Final decision taken in the matter may be communicated to the Committee in due course.

Recommendation (Serial No. 53, Para 3.69)

The Committee would like to point out that while the use of pesticides as a plant protection measure helps to increase the yield per acre by saving the crops from pests and diseases yet there are many pesticides which may have harmful effects on soil organism and may pose a grave danger to the health of consumers of foodgrains. The Committee would, therefore, like Government to undertake studies regarding the adverse effect of application of insecticides on crops as also the possible danger of pollution of environments resulting from the use of the various pesticides so as to keep abreast of the latest technical developments in this field and recommend for use by the farmers only those pesticides which are safe as plant protectants. The knowledge already available in this respect and the results of our own studies should be kept strictly in view while granting licenses for manufacture/formulation of pesticides/insecticides and there should be a system of a contemporaneous review to take no chances with chemicals which may affect adversely the health of the nation.

Reply of Government

The Indian Council of Agricultural Research, Indian Council of Medical Research, Council of Scientific and Industrial Research and State Agricultural Universities have been undertaking studies on pesticides and their effect on crops, human beings and animals and the environment. Such studies are being further expanded during this Plan period. The establishment of the proposed Central Insecticides Laboratory during the current Plan will further strengthen the facilities in the country. The knowledge already available is being used by the Registration Committee set up under the Insecticides Act while considering the registration of pesticides. The Registration Committee while considering the registration of 117 pesticides did not approve of 18 and have recommended phasing out of 2 insecticides, namely Endrin and Methyl Parathion. The manufacture of another toxic insecticide Ethyl Parathion has been stopped on the advice of the Committee. For aerial spraying of pesticides only the very safe insecticides are registered for use. Under the provisions of another act Prevention of Food Adulteration Act, the pesticides residue limits on items of food have been laid down for 20 widely used pesticides. The Central Insecticides Board with the help of the Pesticides Environmental Advisory Committee regularly

reviews the problems and the latest technical developments. In order to enable imposing of additional conditions in the light of fresh data regarding effects of pesticides becoming available, it is proposed to make suitable provisions in the Insecticides Act.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 59, Para 4.25)

The Committee are constrained to note that as against the target of setting up 7000 Agro Service Centres by the end of the Fourth Plan Period, the number of such centres actually set up by the end of the Plan Period, was only 1700. The Committee recommended that the Agro Service centres should really be service-oriented and the Scheme should have a built-in incentive so as to attract young men with technical background to take up the scheme in larger numbers Government should lay down guidelines for the working of such centres and assist them in establishment themselves. Government setting up of these Centres according to the targets laid down for the Fifth Plan Period. There should be a system of keeping a close watch on the performance of these centres so as to effect improvements and remove impediments in the way of the success of the Scheme.

Reply of Government

The target for the Fourth Plan for the setting up of Agro Service Centres was 2500 and not 7000 as indicated. The Scheme of Agro Service Centres is actually to be a service-oriented scheme with built-in incentive to attract young men with technical background to take the scheme. The following is the recommendation made in the report on generating employment for the educated in India by ARTEP (Asian Regional Team for Employment Promotion) which visited India in June-August 1972:—

> "The introduction of formal phychological testing would be helpful in the screening process".

Necessary action has already been taken with the concerned Department|Ministry on the recommendation.

Necessary action by addressing a D.O. to the Managing Director to evaluate the performance of Agro Service Centres has already been taken in order to evaluate the performance of the centres and of the scheme to ensure proper functioning and also to take corrective measures based on the observations made during the evaluation.

Programme Evaluation Organisation of the Planning Commission has also been addressed regarding the evaluation of the Agro Service Centres.

The recommendations could, therefore, be accepted.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 61, Para 4.30)

Power tillers are utilised by relatively small farmers. The Committee is concerned to note that due to steep rise in the prices of power tillers, the demand therefor has gone down appreciably. They, however, note that the Government have recently constituted a Committee to go into the question of bringing down the prices of power tillers. This Committee may also be asked to go into the performance of the power tillers to determine whether the lack of demand could also be due to their performance. The Committee urge that the report of that Committee should be expedited and early decision taken on its recommendations so that the prices of power tillers are within the reach of the average small farmers.

Reply of Government

A Committee was set up by the Government of India in 1973 to review the cost reduction and popularisation aspects of power tillers. The following were the terms of reference of the Committee:—

1. To study and determine the reasons for the failure of demand to catch up with the initial estimates of 80,000 numbers per annum by the end of Fourth Plan, made some years ago.

2. To suggest ways and means to increase the popularity of the power tillers and also to reduce the cost.

The Committee submitted its report in September, 1975. Its recommendations are briefly mentioned as under:—

(1) Reduction in the cost of power tillers should be attempted through the use of raw materials and components covered by Indian Standard Institute standards, diversification of the manufacturing plant for other items also, priority allocation of raw materials as components to the manufacturers of power tillers.

(2) Power tillers should be exempted from import duty, counterveilling and excise duty, sales tax (Central and State), road tax etc. Duties and taxes form as high as 30 per cent of the cost component as applicable to the farmers.

(3) Programmes of popularisation of power tillers should be ancelerated through the Government Departments, agricultural universities and other agencies besides the efforts on the part of manufacturers themselves. SFDA and MFLA projects should allow requisite subsidy on the popularisation of power tillers in their areas. The grant of loans for the purchase of power tillers should be based on the ownership of 3 acres of land instead of 10 acres in view of the utility of this machine farms of 3-10 acres areas as well.

(4) Manufacturers and research and development institutes should undertake development of new implements for increasing the utility of power tillers.

(5) Training programme of the operation and maintenance of power tillers for farmers should be accelerated through short term courses for farmers, mechanics and extension officers in the Tractor Training and Testing Centres at Budni and Hissar.

The instructions of the Expert Committee to go into the performance of the power tillers for determining whether the lack of demand could also be due to their performance could not be carried out as the Committee had finalised its report by the time the report of the Estimates Committee was received in the Ministry. Since a number of power tillers tested at Tractor Training and Testing Station. Budni and the machines were cleared for manufacturing in India, the utility of the power tillers on the small farms in India (particularly in the paddy and hilly areas) was established.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Comments of the Committee

Government should take followup action on the recommendations of the Expert Committee on an urgent basis.

Recommendation (Serial No. 62, Para 4.31)

The Committee would further like to point out that in the context of land ceilings and smaller holdings in the country small

machines like power tillers would proved popular and would go a long way in maximising food production. It should, however, be ensured that apart from the price aspect, the power tillers manufactured within the country are such as could be put to verstile use and do not post maintenance and other problems for the farmers. The Committee have in an earlier paragraph already recommended a study to be made in regard to tractors with a view to standardise production. The Committeee would like similar action to be taken in regard to power tillers.

Reply of Government

Power tiller is the latest alternative power suitable for small holding especially which grow rice as a major crop. Power tillers are hand operated tractors specially designed and developed for use on small and medium size farms and under farming conditions where large conventional tractors are either difficult or uneconomical to be used. Power tillers can be used for rotovators both in the wet land and dry land conditions.

Implements for other operations like dusting, drilling the seed, trailing have already been developed by the manufacturers. The Committee has suggested that the development of other specialised implements be taken up in research and testing centres and in the agricultural universities that the power tiller becomes more versatile like the general purpose tractor. As stated above stress has been laid by the Committee on the acceleration of the programmes of training farmers in the operation and mechanics in the repair of power tillers in the Training Centres at Budni and Hissar. The manufacturers of power tillers are being advised to concentrate for sale in compect areas and to provide sufficient after-sales service to the farmers for reducing the breakdowns on the power tillers.

As regards standardising the production of power tillers, the Indian Standards Institution has already laid down standards for different grades of steels, raw material, and a number of components such as bearings, V-belta, roller chains, oil seals, filters, cultches etc. Some components used by the automobile and ancillary industry and the same could also be used by the power tiller manufacturers. The details of above standards have already been sent to manufacturers for adoption in the manufacture of power tillers. Various other items of power tillers have also been taken up for formulation of standards by Indian Standards Institution in collaboration with

the Ministry of Agriculture and Irrigation and power tillers manufacturers for incorporation in the production of power tillers.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 63, Para 4.36)

The Committee underline the need for continuous research in evolving agricultural implements—power, animal or hand operated most suited to Indian conditions and their standardisation and publicity. There should also be a well coordinated programme for their production and distribution particularly in the backward and remote areas of the country where the need for improvement in the mode of agricultural operations is the greatest.

Rely of Government (Department of Agriculture)

Realising the need for research on agricultural implements, the standardisation, manufacture and popularisation the following action has been taken:

Research:

(a) The basis research work on agricultural implements operated manually, by animals and power is carried out by the following organisation:

The Indian Council of Agricultural Research (through its engineering wing) has organised the work of research and development of agricultural implements in its Research. Testing and Training Centres in various agricultural engineering colleges and agricultural Universities and Institutes as under:—

Agricultural Universities:

1. Agricultural Engineering Department, Punjab Agricultural University, Ludhiana.
2. Agricultural Engineering Department, G.B. Pant University, Pant Nagar.
3. Agricultural Engineering Department, J.N.K.V.V., Jabalpur.
4. Agricultural Engineering Department, Udaipur University, Udaipur.

5. Zonal Research Centre, Tamil Nadu Agricultural University, Coimbatore.

6. Research Testing Centre, Agricultural University, Hyderabad.

7. Research Testing Centre, Agricultural University, Poona.

Indian Council of Agricultural Research Central Institutes:

8. Division of Agricultural Engineering, IARI, New Delhi.

9. Indian Institute of Sugarcane Research.

10. Central Rice Research Institute, Cuttack.

11. Indian Jute Research Institute, Barrackpore.

12. Central Grassland Research Institute, Janshi.

Others:

13. Agricultural Engineering Department, IIT, Kharagpur.

14. Agricultural Institute, Allahabad.

15. Research Testing Centre, Mandi.

16. Central Mechanical Engineering Institute, Durgapur.

(b) The work on development of implements through modification of the existing ones after field trials is carried out by the following organisations:

(i) Agricultural Implements Section in the State Departments of Agriculture.

(ii) Tractor Training and Testing Stations, Budni (Madhya Pradesh) and Tractor Training Centre, Hissar (Haryana).

(iii) Manufacture of agricultural implements guided technically by the State Agricultural Engineers and the Government of India, Machinery Division, to develop new implements according to the need in the Zones.

(iv) Invention Promotion Board encourages the development of new agricultural implements by awarding financial assistance.

2. (a) The standardisation of agricultural implements is mainly carried out by the Indian Standards Institution with the participation of the Agriculture Universities, the State Departments of Agriculture, Indian Council of Agricultural Research, manufacturers and farmers. So far 95 IS have been issued and 59 agricultural machines have been covered under this programme.

(b) The quality marking of agricultural implements has also been taken up by some State Departments of Agriculture and Industry. These departments lay down the elaborated specifications of implements which are patronised for popularisation under the programme of extension and distribution.

3. (a) *Production of Agricultural Implements*: Agricultural implements presently are being produced in the organised Government sector and the private sectors as under:

Government Sector:

(i) Nahan Foundry Ltd., Nahan, Himachal Pradesh.

(ii) Haryana Agro-Industries Corporation, Nilokheri.

(iii) Punjab Agro Industries Corporation, Ludhiana.

(iv) Rajasthan Agro Industries Corporation, Jaipur.

(v) Uttar Pradesh Agro Industries Corporation, Lucknow.

(vi) Bihar Agro Industries Corporation, Patna.

(vii) Kerala Agro Machinery Corporation, Ernakulam.

(viii) Government Workshop, Trichinapally.

(ix) Central Tractor Workshop, Bhopal.

(x) Central Workshop, Nagpur.

Private Sector:

Manufacture of agricultural implements has been encouraged in the large and small sectors. In order to produce simple improved tools in the backward and remote areas of the country, the only feasible step in this direction can be the training of the rural agricultural artisans. For this purpose the rural artisans have to be trained in the manufacture and repair of implements and tools including the pumpsets. For this purpose, the Government of India aided the State Governments to set up artisans training

workshops in the Extension Training Centres/CTCs of the Department of Extension and Agriculture in various States. So far about 4000 artisans have been trained upto June, 1975. A review of these workshops is being made to make these workshops more effective in achievement of the above mentioned objectives.

Distribution:

Purchase of agricultural implements is being made by the farmers directly out of their own private resources or against the loans from the manufacturers of implements. For the introduction of new implements, the State Governments have in the past distributed certain implements against subsidy. This practice has been generally stopped and it is at present in action under the marginal farmers and small farmers development agencies programmes.

Agro Industries Corporations are also stocking costly implements for sale to the farmers against cash or loan.

4. (a) *Publicity*:

Publicity of improved agricultural implements to be introduced amongst farmers is affected mainly through the State Departments of Agriculture which have Agricultural Implements Sections and to some extent through State Agro Industries Corporations. The Agricultural Implements Sections at present, are not adequately staffed. There is a need to have an Agricultural Engineer at the district level, an Agricultural Engineer at the Divisional level and Additional Director or Joint Director of Agricultural Engineering at the State level. This staff has to arrange methods and results field demonstrations on working of the agricultural implements to convince the farmers of their utility and to induce them to adopt the new machines. This scheme requires strengthening and of demonstration kit of implements together with better transport facilities for equipment and staff to the village level.

(b) *Publications and Exhibitions*:

The Directorate of Extension of the Government of India and the State Departments of Agriculture and Extension to issue extension publications on agricultural implements off and on and also exhibitions are arranged on important occasions or in fairs. The Agricultural Universities and the ICAR also arrange Kisan Melas and exhibitions which include the display demonstrations of improved implements. These programmes, however, require to be extended on a mass scale so that every farmer learns about the development of new implements and the possibility of getting guidance or assistance

in connection with collection, purchase, operation and management. Training programmes are organised in agricultural machinery for farmers in Tractor Training and Testing Station, Budni and the Tractor Training Centre, Hissar. Presently these two institutions run 3 courses of 3 months' duration at each place for training the farmers in selection, operation and management of agricultural machinery. The total capacity of the training from the two institutions is 420 farmers per year. The Government of India are contemplating to start a third training centre for the farmers in Southern Region at Mysore. The Department of Agriculture has also initiated a programme of publishing bulletins and manuals on training of farmers trainees and farmers in Agricultural Machinery.

Reply of Government (Department of Agricultural Research and Education)

In the last two decades, agricultural engineering research has developed from practically a state of non-existence into an important branch of agricultural research organisation at the Centre and the States and has made significant contribution to the advancement of agricultural in general. The ICAR carried out an All India Survey of indigenous agricultural implements and brought out a printed publication during the Second Plan to serve as a useful guide for research workers. As a follow-up, ICAR also provided financial support for starting seventeen research and testing centres one in each State for design and development of suitable implements. With the coming-up of agricultural universities in the last decade, agricultural engineering colleges have been established and some of these Research Testing Centres have got merged with them. Besides producing competent agricultural engineers for manning the various posts in agricultural engineering, they have also further intensified research on more urgently needed equipment suitable for the area concerned.

With the aim of encouraging talented designers in public and private sectors, ICAR instituted a prize award scheme under which competitions are being held periodically for selected equipment which have attracted good response. Giving due consideration to the needs of small farms which cover over 70 per cent of the total holdings, considerable attention has been and is being paid to research on manual and bullock-drawn implements. To utilize the prime movers of the pump-sets already available with small farmers design of machines having low power requirements have also been developed.

2. *Farm Machinery*:

Research on farm implements and machinery has been in progress at Zonal Centres at New Delhi, Coimbatore, Poona, Ludhiana and Rajendra Nagar under Plan scheme and at Hissar, Pant Nagar, Jabbalpur, Udaipur under cess funds. Research and development have been concentrated on a wide variety of equipments.

2.5. *SOIL WORKING IMPLEMENTS*:

Tillage is one of the major operations and requires more than a third of the total energy input. Efficient implements are required not only to reduce time and cost but the drudgery of the farm worker. Research done so far has given rise to mold-board ploughs, different kinds of harrows, puddlers, levellers floats, listers etc., and have got into production at several firms. At present some implements which may be useful for dryland agriculture such as sweepes, chisel ploughs, sub-soilers and rod weeders have been taken up.

Power tillers are generally used for puddling operations. However, the operation becomes difficult in heavy clay when the water has been kept for a long time. In such soils the power tillers sink in the soil. For tackling this, cage wheel design has been taken up at Coimbatore. The new cage wheels developed have given better traction and more output.

Weeding by indigenous method is a strenuous operation. A power-weeder was designed at Hissar. It has a 1.95 H.P. Villiers engine and is provided with gear reduction unit. Different kinds of soil working tools have been designed.

2.2. *Sowing and Transplanting Machines*:

Precise drillings of the seed and fertilizer placements are important for economy in seed, time, cost for inter-cultural work and good crop stand and increased yields. Farm sizes being small the approach has been to develop single row drills for manual power and 2-5 row machines for bullock power. Large number of these have been completed and are reported to be available.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated the 30-1-1976]

Recommendations (Serial Nos. 64 & 65, Paras 4.41 & 4.42)

The Committee would like to point out that credit is an essential agricultural input on which the assimilation by the farmer of

production largely depends. It is therefore also in the national interest that the farmer should be assisted by institutional finance in procuring agriculture inputs. In this context, the Committee would like Government to make a distinction between the credit to satisfy the personal need of the farmer and the credit for procuring agricultural inputs and the latter should, in the opinion of the Committee, be comparatively more liberal terms.

At present the farmer has to go to several organisations for procuring different agricultural inputs. This is very cumbersome and time consuming for him. The Committee recommend that Government should work out and launched a scheme of multi-purpose cooperatives for providing all the requirements of the farmers such as credit, seeds, fertilisers, pesticides, pumps sets etc. as existing in some other countries of the World.

Reply of Government

It has been the policy of Government of India and Reserve Bank of India to ensure adequate flow of institutional credit for procuring inputs like fertilisers and pesticides. In fact a substantial portion of the crop loan advanced to the agriculturists (B Component) is meant for supply of inputs and the financing institutions ensure that this portion of the crop loan is availed of by the agriculturists in shape of kind only. Requirements of crop loan for inputs is regulated by the scale of finance adopted for various crops in a particular area and loans for the purpose are advanced accordingly.

No financing institution has been advancing consumption loans as such. Only under crop loans, component 'A' is disbursed in case which covers the miscellaneous cash outlays of a cultivator during the production period. It reflects *inter alia* labour charges which, in the case of small cultivators who have no need for hired labour, would serve to finance outlays on family consumption during the production period. Only the Regional Rural Banks, five of which have been established recenty, will be advancing consumption loans in a limited fashion for (i) educational requirements and (b) medical attention (subsistence loans to be given to small borrowers by the Regional Rural Banks during the process of production could be treated as part of production loans as at present.

As recommended by the National Commission on Agriculture in their Interim Report on Credit Services for small|marginal farmers and agricultural labourers, it has been decided to organise

special cooperatives, known as Farmers Service Societies to provide integrated credit (Short-term, medium term and long-term) and other services and facilities including supply of inputs and equipments to agriculturists, especially small/marginal farmers and agricultural labourers. It is envisaged that in areas where the cooperative credit structure is weak, dormant or non-existent, compact areas may be covering a minimum population of 10,000 and going upto a full C.D. Block for organising Farmers Service Societies. It has also been decided that wherever possible, a strong existing primary agricultural society may be converted into a F.S.S. as it was an easier course in many areas than organising new F.S.S.

The F.S.S. is expected to disburse all types of credia required, supply inputs including fertilisers, arrange for processing and marketing, wherever feasible, and undertake all connected activities directly or in conjuction with other organisations. The F.S.S. can be financed either by a Commercial Bank or the Cooperative Bank. The membership of FSS will be open to all agriculturists, agricultural labourers and rural artisans in its area but to serve the interest of the weaker sections, two thirds of the membership of the Board of Management will be reserved for them. The State Government|Union Territory Administrations will be taking necessary steps to organise at least one Farmers Service Society in each of the districts covered by Special Programme of SFDA|MFAL Development Agencies, Drought Prone Areas Programme. It has also been decided to set up at least 20 F.S.S. and 20 multi-purpose Cooperative Societies in each of the districts|area covered by the Regional Rural Banks.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 67, Para 5.36)

The Committee consider that dual arrangements which exist in some States whereby responsibility for education and research in agriculture is devided between the State Government and the Agricultural University are hardly likely to produce the best results out of limited resources available therefore. Besides, the Committee feel that the effort in research and education is likely to be more meaningful if it is brought under the guidance, supervision and coordination of the university specialists and experts. The Committee therefore recommend that Government should continue to pursue with the State Governments the question of transferring

complete responsibility for agricultural research and education to the agricultural University so that there is no overlapping and wasteful duplication of effort, and agricultural research and education is placed in expert hands and that the responsibility for achievements or failures in the field could be clearly identified. At the same time, the Universities should inspire confidence by their work and achievements in the field of agricultural research and development so as to facilitate the ready acceptance by the State Governments of their pivotal role in this field.

Reply of Government

The States of Punjab, Himachal Pradesh, Haryana, M.P., Gujarat, Maharashtra Andhra Pradesh, Karnataka, Assam, and Bihar have already transferred the research responsibility in agriculture from the State Govts. to their respective Universities. In Tamil Nadu, Orissa and West Bengal, the State Govts. have made a partial transfer.

During the current year, the State Govt. of U.P. took the decision to set up 2 new agricultural Universities in the State in addition to the already existing Pantnagar University. Though Pantnagar was started in 1960, the State-wise research responsibility was not transferred to the University all these years. With the enactment of two more agril. universities, the U.P. Government, have also decided to transfer the research responsibility in agriculture to each of the 3 universities assigning areas of the State to each of them. The Government of Rajasthan have not transferred the research responsibility to University of Udaipur, which started originally as an agril. university, but later on because of composite university. During the current year, the Government of Rajasthan appointed a committee to examine the question of transfer of agricultural research to the University of Udaipur. This high level committee of the Government has recommended the transfer of all agril. research including the agril. research Stations in the State to the Udaipur University. The State Government is expected to take a decision in the matter soon.

I.C.A.R. is continuing its efforts to persuade the State Government which have not yet transferred research responsibility in agriculture to the State Agril. Universities. The Government of India have in August, 1975, issued a notification under Sec. 12-A of UGC Act laying down the condition that for any new Agrl. University to be eligible for assistance from the centre, the State Government should commit that agricultural research of the State will

be transferred to the agril. University. This notification will strengthen the efforts of the I.C.A.R. towards making agricultural research in the State a responsibility of the agricultural university.

[Ministry of Agriculture and Irrigation, (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 68, Para 5.37)

The Committee also recommend that there should be a system of objective evaluation of the research and development work done in each Agricultural University/Institute by an outside body of experts in related disciplines after every five years, preferably before the commencement of each Plan period. Such an evaluation would enable the State Governments to fully appreciate the work being done in the University and also enable the University itself to learn from the independent assessment of their work and effect improvements.

Reply of Government

A programme of objective evaluation of the research and development work done in each Agricultural University by an outside body of experts will be taken up. For this purpose it is proposed to set up an evaluation cell at the headquarters of the ICAR with a small core staff, which will assist evaluating teams of outside experts. It is proposed to take up evaluation of Universities which have functioned for a minimum period of 5 years.

[Ministry of Agriculture and Irrigation, (Department of Agriculture), O.M. No. 2-3/75-Budget, dated the 30-1-1976]

Comments of the Committee

Concrete action taken in pursuance of the recommendation of the Committee may be intimated to the Committee in due course.

Recommendation (Serial No. 73, Para 5.42)

Agriculture in India is carried on mostly in small and medium holdings. In view of the fact that agricultural inputs like chemical fertilisers, irrigation water and power have become not only costly but scarce, the country has the problem of increasing production in small and medium farms by intensive farming techniques under conditions of resources constraints. The Committee desire that this aspect should be given utmost attention in the scheme of agricultural research, particularly in respect of food crops.

Reply of Government

I.C.A.R. being aware of the problem of the small land holders to buy costly inputs like fertilisers and irrigation started a number of experiments at different locations under the Model Agronomic experiments Project under conditions of resource constraints. This aspect has also been kept in view under the crop Improvement Research Project specially on cereals and pulses.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 74, Para 5.43)

The Committee suggest that each Agricultural University should select a few farms of the size of land ceiling applicable in the State and demonstrate how yield can be increased by the use of High Yielding Variety Seeds, new technology and improved agricultural practices under local conditions obtaining in the area. Such demonstrations would, in the opinion of the Committee, be more practical and yield better results in convincing the farmers about the utility of new agricultural technology and are bound to change their outlook about the adoption of new techniques extensively.

Reply of Government

The University will be encouraged to take up demonstration of intensive Agricultural practices on small farms approximation to the size of land ceiling in the State.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dated the 30-1-1976]

Comments of the Committee

Concrete action taken in pursuance of the recommendation of the Committee may be intimated to the Committee in due course.

Recommendation (Serial No. 75, Para 5.44)

The Committee have in a subsequent chapter dealt with the problems of agriculture in dry areas which account for 42 per cent of the food production in the country. They also take this opportunity to emphasise the importance of greater attention being paid to research in the development of seed varieties and production technology suitable to dry areas, drought prone areas and such

areas as for instance in Maharashtra, where the top soil is very thin creating peculiar problems.

Reply of Government

ICAR realising the importance of the dryland agriculture initiated a research project on dryland agriculture in the year 1970. There are 15 main centres and 8 sub-centres apart from the Coordinating Centre at Hyderabad. These centres have been established in different agroclimatic regions of the Country. On the basis of information available during the first three years of this project, a publication entitled "Crop production strategy in rainfed areas under different weather conditions during 1974-75" has been brought out. The research work on production of technology suitable for dry areas specially in drought prone areas is continuing. For intensification and strengthening of these research efforts, the Council sanctioned during the 5th Plan an outlay of Rs. 300 lakhs as its share, one pilot project for management of black soil under rainfed farming condition has been implemented over a cluster of villages at Indore (M.P.) in collaboration with U.K. Government from 1974.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 76, Para 5.45)

The Committee consider that in the context of their important role in increasing the production of foodgrains, the Agricultural Universities should place greater emphasis is on extensive services and their performance should be judged by their efforts and achievements in augmenting production in area or region for which they may be responsible. The Committee suggest that while evaluating the work of an Agricultural University after every five years as recommended in an earlier paragraph, their performance should also be judged on the basis of the increase in agricultural production and awareness of improved agricultural practices among the farmers, brought about by them in their region area.

Reply of Government

The agricultural universities will be made aware that an important criterion in judging their performance every 5 years will be the part played by them in increasing agricultural production

and in creating awareness of improved agricultural practices among the farmers in the area or region for which they are responsible.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Comments of the Committee

Concrete action taken in pursuance of the recommendations of the Committee may be intimated to the Committee in due course.

Recommendation (Serial No. 78, Para 5.47)

The Committee appreciate the efforts being made to coordinate agricultural research on various food and other crops and disciplines undertaken in different agricultural universities and institutes through All India Coordinated Research Projects. Now that existing system of research coordination has been in operation for some time, the Committee recommend that the role and achievements of the All India Coordinated Research Project, on which Rs. 29 crores were spent during the Fourth Plan period and a sum of Rs. 47 crores is proposed to be spent during the Fifth Plan period, should be evaluated by a body of experts with a view to locate bottlenecks and suggest improvements in their working. The evaluation study should be made separately in respect of the performance of the Coordinated Projects as a whole and in respect of Projects which may be directly or indirectly concerned with increasing the production of foodgrains.

Reply of Government

A number of study teams were constituted for evaluating critically the progress and problems of the All India Coordinated Research on Foodgrains and other crops, animal sciences and fisheries towards the end of Fourth Five Year Plans and they have critically reviewed the projects and made valuable suggestions which have been incorporated while the Fifth Plan proposals were drawn up. In addition, the Coordinated Project work is being constantly evaluated by the Annual Workshops and corrective measures are applied as the project work progresses. National Commission on Agriculture also made valuable suggestions as to how agricultural research on foodgrains ought to be organised in the country. The National Committee for Science and Technology (NCST) also organised several Regional Seminars to discuss the Fifth Plan approach papers prepared on agricultural research. A joint meeting was also

organised recently by the Council between the project Coordinators of All India Coordinated Research Projects and Vice-Chancellors of Agricultural Universities where a critical appraisal of the work of each Centre under the Project was made and the gaps in the projects in terms of technical, personnel, physical and financial, were assessed and remedial measures were suggested. The various points which emerged from the meeting and which require attention of the Agricultural Universities, Central Institutes and Project Coordinators have been brought to their notice with a view to making the work of the Coordinated Projects more effective.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dated the 30-1-1976]

Recommendation (Serial No. 73, Para 5.48)

The Committee also recommend that in view of the increased emphasis on the production of foodgrains, Govt. should accord priority in the matter of research and funding to such of Coordinated Projects as are directly or indirectly concerned with increasing the production of foodgrains as against Projects on more sophisticated areas of research.

Reply of Government

The ICAR shares the anxiety expressed by the Estimates Committee for increasing the production of foodgrains. The crop research projects have been accorded a very high priority in the Fifth Plan and the outlays have accordingly been enhanced to meet the needs of the research on these crops. A comparative picture for Fourth & Fifth Plans is as follows:—

Crop	Outlay (Rs. in lakhs) Fourth Plan	Fifth Plan (including State Shares)
1. Rice	160·00	201·00
2. Wheat	65·00	119·00
3. Barley	30·00	28·00
4. Maize	67·00	136·00
5. Sorghum	46·00	110·00
6. Millets	46·00	60·00
7. Pulses	86·13	370·00
	500·13	1024·00

In addition, the outlays for Fifth Plan do not indicate a complete picture of the expenditure envisaged, as there are many Centres including Coordinating Units, operating in respect of each Project, at ICAR Institutes for which the expenditure would be met from the outlays of the respective Institute. Further, the reseach done in the ICAR Institutes on foodgrains crops is not reflected here since the explanation here is confined to Coordinated Projects.

Agriculture and more so research in the field of agriculture is a complex phenomenon and the productivity is dependent on multiple factors. Therefore, research has to be conducted in the attendent directions|disciplines. The expenditure proposed, therefore, on other projects, e.g. research in the fileds of soil, agrony and engineering, including national demonstrations, operational research, dryland agriculture, etc. have all a bearing in increasing the productivity of foodgrains crops. The effort is to reach a fairly satisfactory level and sustain it, even under aberrant weather conditions.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O. M. No. 2-3/75/Budget, dt. 30.1.1976].

Recommendation (Serial No. 80, Para—5.49)

The Committee observe that there has been lately a proliferation of seed varieties of different food crops which have, after short initial success, been found to be highly disease/pest prone. Besides, there is no effort to raise rapidly sufficient quantity of nucleus and foundation seed of the released variety to make for its saturation over the geo-climatic area for which it is supposed to be suitable, before the release of another variety for the same area. The Committee recommend that ICAR should ensure through appropriate bodies that there is no unbriddled proliferation of seed varieties, that before release there is a rigorous testing of the varieties all angles-yield, duration, quality, diseases and pest reaction and that sufficent quantity nucleus and foundation seeds of released varieties are built up rapidly so that quality seeds of proven high-yielding variety are available to the farmers in adequate quantity and on time.

Reply of Government

After the spectacular success of the high yielding fertiliser responsive varieties of what and rice, there has been a great demand on the part of the farmers to look for newer and newer crops varieties. This has been partly responsible for the prolifieration of the

seed varieties of different food crops. Further, for some time there has been an anxiety on the part of some of the Plant Breeders also to push through the varieties which they considered promising in a comparatively shorter time prior to the release of the high-yielding varieties of wheat and rice. The Council has now taken corrective steps to curb this tendency. The workshops held for the different crops improvement projects, namely identify a promising variety. None of these varieties is released for cultivation unless it has been extensively tried under minikit trials under different agro climatic conditions in the fields of thousands of farmers all over the country. This not only clearly brings out reaction of the farmers to the yield potential of the variety and exposes it to varied environmental conditions but also provides an effective screening method against susceptibility to pests and diseases. The minikit testing also helps in quick multiplication of such of the varieties which are found suitable for a locality.

As for the nucleus and foundation seed production, the Council has now laid down minimum quantities of seeds which must be available with a Breeder before a variety is even identified for minikit trials. Further, a very comprehensive project is under preparation by the National Seeds Corporation with the World Bank Support and the Indian Council of Agricutural Research will contribute to this project by undertaking to provide adequate quantities of breeders seed of the released varieties. In almost all crop varieties, the quality aspect is also being emphasised and procedure for determining the acceptability and quality aspect of food crops have been standardised in most cases.

In the light of the above it will be seen that the ICAR has taken concrete steps to discourage the proliferation of the varieties of different food crops.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O. M. No. 2-3/75/Budget, dt. 30.1.1976].

Recommendation (Serial No. 82, Para 5.51)

The Committee note the claim of the Government that the National Demonstrations' programme implemented during the Fourth Plan period intensively in 100 districts and extensively all over India has 'led to the change of outlook of the farming community' and these proved to be excellent centres for farmers training and transfer of technology to the farming community. Based on the

experience of the scheme, Government have launched, during the Fifth Plan period, a programme of 23 'Operational Research Projects' on area or watershed basis involving an integrated approach to the rural problems through the Cooperation of local agencies, voluntary organisations, Development Departments, Socio-Economic Institutes etc. The Committee hope that the Projects would be effectively implemented and the cooperation of all the public and voluntary organisations concerned would be forthcoming in larger measure so that the farmer in the field could have the benefit of research and development work being done in the agricultural universities/institutes and at the same time, the nation could also benefit by increased production of foodgrains.

Reply of Government

Based on the experience of the National Demonstrations Programme, the Indian Council of Agricultural Research has already launched 23 Operational Research Projects on area or watershed basis involving an integrated approach to the rural problems through active co-operation of local agencies voluntary organisations, development Departments and Socio Economic Institutes etc.

Co-operation from all the Public and Voluntary organisations concerned with the Operational Research Projects is forthcoming so that the farmers of the operational area may have the benefit of Research and development work being carried out under Operational Research Projects by Agricultural Universities and the Institutes. Efforts are being made to increase not only the production of food crops but also that of fish and animal products.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O. M. No. 2-3/75/Budget, dt. 30.1.1976].

Recommendation (Serial No. 84, Para 5.61)

The Committee also recommend that the Central Government should impress upon the State Governments the desirability of combining the departments responsible for Agriculture and Irrigation and placing them under one Minister, as has been done at the Centre, to make for better coordination in closely related fields.

Reply of Government

The Chief Secretaries of all the State Govts. have been requested for considering the feasibility of implementing the recommendations of the Estimate Committee.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 85, Para 5.64)

The Committee regret that despite the review of extension services in the country by several Committees and bodies appointed since 1958 who had suggested ways and means for its improvement, the existing extension services in the country are found by Government themselves to be inadequate to cope with the needs of modern agriculture and special agricultural development programmes. The Committee would like to point out that the reports of these Committee contain useful ideas and suggestions for bringing about improvement in the extension machinery and if the Government had taken steps to implement them the situation on the food front would have been quite different. The Committee emphasise the need for early implementation of the recommendations contained in the latest report of the National Committee on Agriculture to revamp the extension machinery so that it is able to cope with the needs of technological developments in agriculture and of the special programme.

Reply of Government

Based on the suggestions made by different Committees/Commissions who reviewed the extension services in the country and also the recommendations made by the National Commission on Agriculture, the sub group on Agriculture Development submitted their report which was considered by the group of Ministers on Administration who later suggested certain modifications. The report of the Sub group as adopted by the group of Ministers was placed before the Prime Minister for consideration. On the basis of the observations made by the Prime Minister, it is now proposed to restructure the Agricultural Administration Machinery in the States. This would mean Strengthening of the Agricultural Infra-structure at various levels as well to provide certain new incentives, facilities thus enabling the States to effectively implement the recommendations. The guidelines as approved by the Cabinet Committee will be communicated to the State Governments. The Planning Com-

mission has agreed in principle to the scheme of Strengthening of Extension Machinery at District and Blocks levels and also approved a Fifth Plan outlay of Rs. 25 crores. The Minister for Finance has also given his concurrence in the Cabinet Summary and the Ministry has strongly supported the case.

The self contained note has since been passed on to the planning Commission for their final concurrence. The Planning Commission has circulated the proforma to all the State Governments asking for detailed information about the present set up in the various States. After this information is received, the Planning Commission will give their final concurrence and the scheme is likely to be implemented during 1976-77. In this connection reply to para 5.69 of recommendations No. 86 also refers.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 86, Para 5.69)

The Committee note that a centrally sponsored scheme for strengthening the Machinery of Extension Administration in the States/Union Territories at District and Block levels has been approved for implementation during the Fifth Plan period with an outlay of Rs. 25 crores, representing 50 per cent share of the Central Government, the other 50 per cent to be provided by the State Governments. The scheme aims at strengthening the extension machinery at the District and Block Level which is at present considered unequal to the task of effective implementation of the programmes connected with even the traditional agriculture much less other special programmes. The Committee are distressed to find that although the first year of the Fifth Plan has gone by, the scheme is yet to be cleared by the Ministry of Finance. After its clearance by the Ministry of Finance, the State Governments have to be approached to find their reaction as they have to share 50 per cent of the expenditure and after the States also agree to the scheme, formalities involved in the creation of posts, recruitment of staff etc., have to be gone through. There does not, therefore, appear any likelihood of the scheme being actually implemented even in the second year of the Fifth Plan. The Committee cannot over emphasise the importance of strengthening the extension machinery at the field levels as the transmission of the results of agricultural research and development effort to the farmer in the field depends largely on the effected functioning of the machinery. If the farmer

is to get the benefit of technological improvements and the agricultural production, particularly that of foodgrains, is to be increased, maximum attention has to be given to the strengthening and activising of the extension machinery. The Committee recommend that the implementation of the aforesaid scheme should not be delayed any more and advance steps where possible, should be taken to avoid delay in implementation of the scheme after it is finally cleared.

Reply of Government

The original proposals regarding strengthening of the Extension Machinery at District and Block Level had to be revised slightly keeping in view the observations made by the Prime Minister. The revised proposals are to be approved by the Cabinet Committee on Administration. The draft note for the Cabinet Committee was sent to the Ministry of Finance and the Planning Commission for concurrence before it was placed before the Cabinet Committee. The Minister of Finance has already concurred in the proposals. The draft note is under consideration in the Planning Commission at a very high level and their concurrence is likely to be received shortly. Thereafter the proposals would be put up to the Cabinet Committee for approval and as soon as their approval is received, all necessary steps will be taken to implement the scheme expeditiously.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O. M. No. 2-3/75/Budget, dt. 30.1.1976].

Recommendation (Serial No. 88, Para 5.81)

The Committee are constrained to note that even in the modern era of swift technological developments in the field of agriculture, it has been found possible to give refresher training to extension workers at the grass root level only once in 7-8 years. With an out-dated knowledge, it is hardly possible for the VLW to play any useful role in the national effort to increase agricultural production. The Committee recommend that there should be a system of regularly feeding the VLW with the knowledge of latest advances in the techniques of agricultral production, by way, of refresher training courses organised at conveniently located centres, manned by technically competent staff, so that he can really exert an effective influence on agricultural productivity in his area of operations.

Reply of Government

The Government of India had been providing leadership, guidance, technical and financial support to the State Governments for developing of Pre-service training programmes as well as the refesher training. This formed an integral part of extension training development from the very inception of the National Extension Service in 1952. Since the withdrawal of the financial assistance made available to these programmes by the Government of India, the training programmes received low priority by the State Governments. The technical support also became somewhat less effective due to passage of complete control of these activities to the State Governments. This period came at a time when rapid technological advances in Agricultural development were taking place; this situation thus created a gap between the innovations brought out by the research stations and their adoption by the farmers via trained extension workers at these Institutions. Further, the place of village level worker in agricultural production was not clearly demarcated and suggestions implemented despite made by the Expert Committees from time to time. The refresher training of village level workers who are an important class in the community development programme needs to be strengthened in content and methodology. The important activity should be periodically examined in annual plan reviews, and necessary direction and follow up measures have to be taken jointly by the Central Government as well as the State Governments on priority basis with specific commitment of resources by the Centre and matching share by the State Governments.

Since the inception of High Yielding Varieties Programme in the country, it has been considered essential to provide a 2 days training to the village level workers in the latest recommended package of practices before Rabi and Kharif seasons. This has helped to some extent in bringing them up-to-date as far as high yielding varieties programmes are concerned. The desired result may be achieved expeditiously if this programme is taken up now as one of the centrally Sponsored Schemes. The importance of this programme has always been stressed upon the State Governments, from time to time. We agree with the recommendations of the Committee that the village level worker should be provided an opportunity for refresher training at frequent intervals so that he is up-to-date with the latest technologcal developments. It appears that the State Governments have not been able to make headway due to limited resources. However, the recommendation of the

Estimates Committee in this regard is being brought to the notice of the Department of Agriculture and Rural Development and State Governments for necessary action.

Reply of Government

(Department of Rural Development)

Necessary action on the recommendation of the Estimates Committee has been taken. Directorate of Extension and all the State Governments have been requested to review the training position and introduce a system of regularly feeding the VLWs with the knowledge of latest advice in the techniques of Agricultural production by way of refresher training courses organised at conveniently located Centres.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 89, Para 5.82)

The Committee also note that the number of VLW Training Centres in different States are largely unrelated to the size of the States. For example, while Maharashtra has as many as 9 centres, the States of the size of Bihar and Madhya Pradesh have only 4 and 6 centres respectively. The Committee recommend that Government should impress upon the State Governments, the need for assessing the training requirements of extension workers initial as well as refresher and setting up training centres according to requirements at convenient locations. The Committee, however, feel that there should be at least one training centre in each division which should have adequate facilities for initial training as well as refresher training of VLWs.

Reply of Government

(Department of Agriculture)

To start with, the Training Centres were set up to cater to the needs of blocks which were based on the population density (100 thousands per block). The 6 Gramsevak Training Centres were found adequate to meet the needs of VLWs in Madhya Pradesh. In case of Bihar, the training was carried out in two sets of institutions; namely the basic agricultural schools and Gramsevak Training Centres. The 17 basic agricultural schools set up—One in each of districts; provided one year training in basic agriculture to the VLWs while the GTCs which trained almost double the strength

of the agricultural schools and turning out two batches a year met the training needs in extension for a period of six months. As outlined in para 5.81, there is a need for a thorough review of the in-service training requirements which will be taken up in consultation with the State Governments so as to strengthen and modify the institution to provide a useful, effective and continuous training. In this connection the question of setting up of Regional Training Groups in Extension & Training is under consideration.

The State Governments are being apprised of the observation made by the Estimates Committee in this regard so that the training capacity available with them are fully utilised and if needed these may be increased.

Reply of Government

(*Deptt. of Rural Development*)

Recommendations of the Estimates Committees have been noted and adequate steps taken by the Department of Rural Development. Directorate of Extension has been requested to review the training courses etc. (please see recommendation 88).

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 90, Para 5.83)

The Committee recommend that the Government should have the content and quality of the extension education and training imparted by the extension training centres/institutions evaluated by an expert outside body and take steps to give it a field orientation closely related to geo-physical conditions of the areas/zones catered for by these institutions.

Reply of Government

With the emerging need the syllabi of the various training courses are reviewed in the Extension Directorate from time to time and efforts have been made to improve the content and quality of training. *Ad hoc* courses of short duration are also arranged on specific disciplines according to needs of the new programme.

The Evaluation cell in the Directorate of Extension has also undertaken a comprehensive study in regard to organising of the VLWs training programme and the results will be utilised for giving

proper orientation to the curriculum developed for the various programmes. However, as desired by the Estimates Committee the need for setting an expert committee to give full orientation related to geo-physical conditions of the areas/zones catered for by the training institutions is being examined in consultation with the Directorate of E & S and Programme Evaluation Organisation of the Planning Commission.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3-/75-Budget, dt. 30-1-1976].

Comments of the Committee

Concrete action taken in pursuance of the recommendation of the Committee may be intimated to the Committee in due course.

Recommendation (Serial No. 92, Para 5.94)

The Committee note that the Farm Information Unit of the Directorate of Extension provides information support to all Central and Centrally Sponsored Schemes and gives out the technical know-how emanating from the Central Research Institutes and Central directives on agricultural campaigns. It also disseminates farm information of all India character. The information programmes include production of literature, press service, non-projected visuals such as charts, slides and exhibitions and the production of films and news reels. The Committee feel that the activities of this unit are at best only supplementary as each of the Central Agricultural Institutes itself have full fledged information units which publicise their activities through various mass media. The Committee apprehend that there being several agencies for disseminating of information of the type being supplied by the Farm Information Unit, there is a possibility of overlapping and duplications of effort. The Committee therefore, recommend that the role, functions and achievement of the Farm Information Unit including the publicity value of the material produced by it so far should be evaluated by an outside expert body who may also suggest measure to make it an effective instrument for dissemination of extension information.

Reply of Government

The recommendations of the Estimates Committee for appointing an expert body to look into the publications of the Directorate of Extension have been noted and would be processed in consultation

with Department of Agriculture, ICAR, Information & Broadcasting Ministry etc.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Comments of the Committee

Concrete action taken in pursuance of the recommendation of the Committee may be intimated to the Committee in due course.

Recommendation (Serial No. 93, Para 6.6)

The Committee note that 75 per cent of the cultivated area in the country is rainfed which contributes only 42 per cent of the nations food. It is well known that people inhabiting these areas are generally poor. It is therefore imperative that special attention is paid to agriculture in these areas and research and development work in dryland agriculture is intensified. Increase in agricultural production in these areas will not only help to overcome food shortage in the country but would also reduce unemployment, under employment and poverty by generating resources in these areas. The Committee, therefore, stress the need for greater co-ordination and intensification or research effort for the development of dryland agriculture. The concerned agricultural research institutions should also utilise the words experience in dry farming so as to profit by successful measures taken elsewhere.

Reply of Government

(Department of Agriculture)

The dry farming techniques as being developed by the Dryland Research Centres of the Indian Council of Agricultural Research, are being demonstrated to the farmers of the dryland areas through 24 development projects established by the Government of India in 12 States; through intensive demonstrations and farmers training programmes. Besides, integrated development of the area is also carried out by having other programmes like soil conservation, land levelling and shaping, water harvesting minor irrigation, introduction of improved farm implements and machinery, animal husbandry, etc. In order to encourage the farmers of these areas to adopt the new innovations, incentives in the shape of grants and subsidies are given under the programme. Encouraged with the results obtained from the adoption of the dry farming technology as demons-

trated under this programme States like Gujarat, Haryana, etc. have taken up this programme in their State Sector also.

Reply of Government

(Department of Agricultural Research and Education)

In recognition of the importance of dryland agriculture, the Council implemented an all India co-ordinated research project on dryland agriculture for intensive research in developing newer technology, during 4th plan with a total outlay of Rs. 178 lakhs. For further intensification of dryland research Rs. 300 lakhs have been provided as Council's share during 5th Plan. To supplement the research efforts, the Govt. of India also sanctioned 24 integrated pilot dryland development projects, nearby the research centres during 4th plan with an outlay of Rs. 2000 lakhs and these are being continued during 5th plan with an outlay of Rs. 1000 lakhs. Appropriate emphasis has, therefore, been made in the field of research and development for improving agricultural production in drylands.

The All India co-ordinated Research Project on dryland agriculture organises annual workshop regularly which are attended by scientists from different dryland research centres in the country, the Project Officers of 24 integrated pilot development projects in dryland agriculture, representatives of Agricultural Departments of the centre and the States, progressive farmers, scientists from agricultural universities etc. While effecting close co-ordination between research and development, the workshop evaluates the progress of the project *vis-a-vis* the field problems and finalizes the Technical Programme for the next year. The highlights of research findings are recommended for extension use. Besides, the Chief Scientists of the research centres are functioning as Chairman of the Project Implementation Committee of the Integrated Pilot Dryland development projects in its neighbourhood, for transfer of dryland technology as it develops at the research centres to the farmers' field.

In view of its importance, International collaboration has been obtained from Canada and U.K. Governments for availing world experience in dryland technology.

There is also close collaboration between research and development as also international collaboration to avail of world experience in the All India Co-ordinated Research Project in dryland agriculture.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 94, Para 6.7)

Noting that certain hybrid varieties of Sorghum and Bajra released for cultivation could not become popular because they turned out to be disease/pest prone and that attempts are now being made to replace them by new varieties the Committee reiterate the recommendation made in an earlier paragraph that the newly developed crop varieties should be subjected to rigorous tests in the field and should be released for general cultivation only if found to be of proven worth.

Reply of Government

(Department of Agriculture)

The above recommendation of the Committee has been noted and a copy has been passed on to I.C.A.R. for necessary action. In fact, this suggestion is already being implemented. To have an appraisal of the new varieties on the farmers' field and district farms, a Minikit Programme of rice is being implemented from the 3rd year of the IV Plan. Based on the success of this programme, a Minikit Programme of Millets, Maize and Wheat has also been launched from the V Plan. Under this programme both released and pre-released varieties/hybrids of Sorghum and Bajra are included. The main objectives of this scheme are:

(i) To expose the farmers to the newest varieties from All India Co-ordinated Projects or from State Universities.

(ii) To obtain the reaction of the farmers with reference to the yield potential and other characteristics of the new varieties in comparison with the ones already being grown.

(iii) To obtain information for formulating a sound seed production programme for the large-scale popularisation of the new varieties.

(iv) To provide a quick information transfer system which will avoid the time-lag between the evolution of the new varieties/hybrids under the breeding programmes and their quick spread through large-scale distribution of seed kits.

In addition, the new varieties|hybrids of Sorghum and Bajra are also put to rigorous tests under the National Demonstration Programme of the I.C.A.R., before they are taken up for general cultivation by the farmers.

Reply of Government

(*Department of Agriculture, Research and Education*)

The procedure of the release of high yielding varieties and hybrids evolved under All-India Co-ordination Research Project of ICAR is that after years of research Scientists develop new varieties and hybrids. These varieties and hybrids are thereafter tested rigorously for 4-5 years under Co-ordinated trials on a number of research centres in a series of trials at various stages. A few varieties/hybrids found superior in yield alongwith resistance to diseases and pests are proposed in the concerned workshop for their release.

However, realising that before final release a variety may be tested among the farmers, recently a new minikit testing at the farmers fileds has been introduced. A number of new promising hybrids and varieties of Sorghum and Bajra are now being tested under Minikit trials on large number of farmers fields in different States. An expert team consisting of Plant Pathologist and Entomologist is being constituted every year at beginning of the start of sowing of these crops. During growing season of these crops these experts teams visit all the bajra and sorghum growing States 2-3 times to survey the prevalence of diseases and pests in general and to assess the reaction of newly developed varieties and hybrids of these crops being tested under Minikit trials to the major diseases and pests of crop concerned. The final recommendations of the new varieties/hybrids for commercial cultivation will be made after judging the opinion of large number of farmers from the Jowar and Bajra growing areas of the country for their adaptability, performance and reaction to pests and diseases. Thus to come up to the level of release, the new varieties and hybrids have to compete not only hundred of strains at various stages but during 4-5 years of testing the new varieties undergo rigorous screening of their resistance to diseases and pests under varying environmental conditions before they are released.

However, disease and pest resistance ability of a crop variety/hybrid is greatly limited by environmental conditions and physiologic specialization in plant pathogens and pests. Bulk of the sorghum and bajra crops are grown in our country in Monsoon season when high humidity accompanied with high temperature

and cloudy weather during growing season of the crop create conductive conditions for development of epidemics of major diseases and pests of these crops. Beside it, the major diseases and pests like downy mildew and grain smut, shootfly and gallmidge of Sorghum; Downy milldew; ergot and grain smut of bajra have several virulent races and biotypes within them. Thus it is not only difficult to combine resistance to all these diseases and pests and their races and biotypes together in a single variety/hybrid but even if a single variety with multiple resistance is released for an area the appearance of new races and biotypes to which variety in question has no resistance make the variety vulnerable to new races of pests and diseases.

However, the newly develop hybrids and varieties of Sorghum such as sorghum CSV 5, CSV 6 are tolrent to schootfly attacks; CSV 5, CSV 4 and all hybrids are resistance to downy milldew. Similarly the newly released bajra hybrids such as P.H H 14 have been found tolerant to downy milldew. In addition a large number of high yielding strains with good level of resistance to the existing diseases and pests and their prevelent races and biotypes have been identified which are in the breeders' Assembly line. Since research is a continuous process, efforts are being made to evolve further high yielding varieties/hybrids/composites of sorghum and bajra with better built in resistance to major diseases and pests.

[Miny. of Agriculture & Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75—Budget, dated 30-1-76]

Recommendation (Serial No. 95, Para 6.16)

The Committee suggest that dryland areas to be developed should be earmarked and suitable development schemes should be tried out on pilot basis and if found successful these should be extended to other areas. These schemes should be composite schemes for the development of agriculture as also other subsidiary occupation of the farmers such as dairying, poultry keeping etc., so as to make a real impact on the economic conditions of the farmers. There should also be a system of close follow up and review of the programmes so as to effect improvements.

Reply of Government

(Department of Agriculture)

The programme of dry farming has been taken up in moisture

deficit areas which have the moisture deficit index generally ranging from 20 to 60 per cent. The 24 pilot projects under the Centrally Sponsored Scheme of Integrated Dryland Agricultural Development have been established in close proximity to the ICAR's Dryland Research Centres/Sub-centres so that the technology in the field of dry farming as developed at the research centres, is demonstrated on farmers fields through these projects.

During the Fourth Plan period, the area covered by each of the 24 projects under the scheme was 6000 to 8000 acres (i.e. 2000 acres during each year of their implementation). This area has now been extended during the 5th Plan and additional 10,000 acres will now be taken under each project in a phased manner. The operational area of each project has been kept at 20,000 acres so as to provide elbow room to the project staff for extending various programmes as envisaged under the project.

The scheme is of integrated nature and besides crop husbandry, permanent and minor irrigation works, the programme of animal husbandry is also taken up so as to provide secondary occupation to the farmers of the project area. This programme includes supply of improved breads of milch cattle, poultry birds, sheep/goats and piggery development. The farmers have been able to earn additional income under this programme, and thereby improve their socio-economic condition.

The periodical progress reports comprising of monthly, half-yearly and annual reports for each project are received from the concerned State Governments regularly, which are reviewed by the concerned technical/administrative officers. Appropriate steps are taken to solve any problem/bottleneck coming in the way of the smooth functioning of the programme. Central Government representatives also participate in the State Level Coordination Committee meetings which review the working of the projects in the States and provide necessary guidance. The Central and State Officers undertake intensive field visits, meet the field staff and farmers of the project areas, identify the problems and provide guidance and solutions on the spot. Review meetings are held at each project to review its progress during the previous years and finalise its action programme. In the meeting of senior officers of Department of Agriculture, held from time to time the progress of the scheme is also reviewed.

It would thus be seen that under the scheme of Integrated Dryland Agricultural Development due emphasis is laid on increasing agricultural production and also on animal husbandry programme for increasing the income of farmers. The area under each project will

be extended by 10,000 acres during the Fifth Plan period. The progress of the scheme is reviewed at various levels and field visits are also made by senior officers of the centre and State Governments to identify problems and have them removed for the better implementation of the scheme.

F. No. CPS 35028/1/75-CU.VI (DF)

Reply of Government

(Deptt. of Rural Development)

The DPAP Programme has been designed as an integrated scheme for the economic development of Drought Prone Areas. 74 units comprise of 56 districts and 18 contiguous areas have been selected for the implementation of the programme. The programme components include Dry Land Farming, Dairying, Poultry keeping, sheep development and other subsidiary occupation. To ensure concentration of resources one or two water sheds of about 10,000 hecs. have been selected in all the programme districts and activities in all the sectors are proposed to be first concentrated in the water sheds. This will be Pilot Project approach and the results will be utilized in remaining water sheds.

Mointering and evaluation have been considered as integral part of the programme. Project economist has been appointed to look after these aspects. Detailed monthly progress report and four quarterly reports have been prescribed. The evaluation of the programme is proposed to be entrusted to independent agencies.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 97, Para 6.18)

They also not that the scheme is being continued in the Fifth Plan period but the outlay on the scheme has been reduced from Rs. 20.0 crores during the Fourth Plan to Rs. 10 crores during the Fifth Plan. Now that the scheme has been in operation for nearly four years, the Committee recommend that the results achieved should be got properly and expeditiously evaluated by a body of experts so as to assess its impact on the farmer and farming practices in the area of its operation and to suggest concrete measures to bring about rapid improvement.

Reply of Government

The plan outlay for the Fifth Plan has been kept at Rs. 10.00 crores on the basis of cost of each project each year. According to the Fifth Plan period, the cost of each project during the plan period comes to about Rs. 38.35 lakh and for the 24 projects it works out to Rs. 9.20 crores. Rs. 0.80 crores have been kept as Revenue Funds to meet expenses on new items which may come up during the implementation of the scheme; some of these may be location specific.

The Department of Agriculture of the Government of India has appointed a Study Team in December, 1971 to examine the existing status of implementation of research centres and pilot projects at six centres, examine the potentialities of latest techniques and their extension to larger areas in pilot project districts, to suggest suitable action programme for improving crop production in selected districts, to examine the existing cropping pattern in these areas and suggest programmes for intensifying crop production, etc. The Study Team was headed by the Agriculture Commissioner and it included representatives of I.C.A.R., Planning Commission, State Department of Agriculture and the Department of Agriculture. The Team visited six projects and made a number of recommendations for the better implementation and extension of the benefit of the technology to the neighbouring areas. The recommendations related to the proper location of the pilot projects, preparation of Master Plan of the project areas, sanctioning of the scheme for the plan periods, early appointment of project staff, carrying out bench mark survey, laying out field demonstrations and giving adequate training to the farmers in the new techniques, to prepare cropping plan for each farming family, more stress to be laid on the growing of crops according to the new techniques, assuring the supply of inputs to the project area, have a crash programme for the use of fertilizers, better coordination between research and project staff, carrying out of adoptive research in the project areas, full exploitation of water resources, adoption of measures for soil and moisture conservation, popularisation of farm machinery for timely operations, development of grass and fodder resources on marginal lands, and also animal husbandry programme, easy and timely availability of credit to the farmers. provision of flexibility in the preparation of action programme under the scheme and other general recommendations with regard to operational area, delegation of powers, transport dove-tailing of other development programmes, etc. Follow up action on these recommendations was taken up with the concerned States which has resulted in smooth running of the scheme.

On the basis of past experience, the programmes under the scheme have been re-oriented and guidelines to execute them properly, issued. It is hoped that the targetted area under each project will be covered by the end of the plan period. It is also programmed to have this scheme evaluated through P.E.O. of the Planning Commission, for which action has already been initiated.

[Ministry of Agriculture and Irrigation, (Department Agriculture) O.M. No 2-3|75-Budget, dated 30-1-1976].

Recommendation (Serial No. 99, Para 7.18)

With a view to maximise food procurement, the Committee also recommend that, apart from the bonus scheme for procurement, Government should also work out and introduce a system of package deal with the farmer whereby against the supply of inputs at fair prices, the farmer may be required to sell to the procurement agencies a stated quantity of foodgrains at a fixed pfice.

Reply of Government

The procurement prices are fixed keeping in view the cardinal principle that remunerative prices covering the cost of production and including a reasonable profit, should be assured to the agriculturists so as to act as incentive for increasing production. The modes of procurement are left to be decided by the State Governments taking into consideration the local conditions in each State.

In the wheat bonus scheme for the marketing season 1975-76, it was suggested to the State Governments that they could utilise the Bonus for making available to the farmers certain inputs at concessional prices, and they should not pay the bonus in each. Likewise, in the paddy bonus scheme for the Kharif marketing season, 1974-75, it was stipulated that the bonus earned by the State Government under the scheme was to be exclusively utilised for subsidising the cost of fertilisers. Under the paddy and rice bonus schemes under consideration for the marketing season 1975-76, it is being proposed that the bonus earned by the States should be mainly utilised for subsidising inputs.

The recommendation of the Committee that a scheme should be drawn linking the delivery by the farmer of grains to the procuring agencies against supply to the farmer of inputs at fair prices is noted. Though at present, no such formal scheme has been drawn up, under the bonus scheme, there is a system under which the farmer who delivers grains for procurement is given a bonus card

which entitles him to obtain some fertilizers at subsidised rate. Efforts will be made to extend this scheme to other areas also so that the producers delivering grains against procurement are given the benefit of inputs at fair prices.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 100, Para 7.19)

The Committee observe that the cost of Production Data made available to the Agricultural Prices Commission at the time of consideration of the pricing policy is generally outdated and incomplete. The Committee understand that the existing process of finalising the data is rather long, which causes delay in finalisation of the figures. The Committee recommend that Government should devise suitable procedure whereby the data made available to the Agricultural Prices Commission is ralatively recent and fully representative so as to make for a realistic approach in arriving at the prices for foodgrains.

Reply of Government

Data on cost of production of crops are being collected systematically and on a continuous basis in most of the States under a Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops launched by the Ministry of Agriculture and Irrigation. A statement is enclosed indicating the year-wise details of coverage of crops in various States since 1974-75. (Not printed). Under the Scheme the field data on inputs and output are collected in the villages selected for enquiry for a whole year, on the basis of day-to-day observations and contact with selected cultivators as various agricultural operations take place. The data are then scrutinised and transferred on to the compilation forms by the Scheme staff in the Universities, etc., to which the field work is entrusted. The compiled data are then received in the Central Analytical Unit of the Directorate of Economics and Statistics, Ministry of Agriculture and Irrigation, for further scrutiny, processing, and analysis and computation of cost estimates.

In the initial years of the conduct of this Scheme, a number of problems had to be faced in as much as the Scheme staff did not have sufficient experience in collection of data with the result that the compiled data contained a number of discrepancies/inconsistencies which had to be sorted out in consultation with the imple-

menting agencies before the data could be processed further and analysed to generate the cost estimates. This being the case, in the initial phase of the implementation of the Scheme, the progress was necessarily slow. However, with the passage of time and the Scheme staff getting more experience of this type of work, the pace of progress in the matter of scrutiny, compilation and processing and analysis of cost data would pick up. As the enclosed statement (not printed) shows, much more work has already been done during the last year than in the preceding years.

The question of reducing the time-lag between the collection of the data and its final analysis was discussed recently at the Technical Workshop of the Officers-in-Charge of the Scheme held in March 1975. It was agreed that, while further intensive efforts be made to reduce the time-lag with the existing staff, it was necessary to strengthen the staff at both the field agencies and the Central Analytical Unit in the Directorate of Economics and Statistics so as to ensure the quality of the data being collected and their compilation, processing and analysis in time. Efforts are being made towards this end in consultation with the Ministry of Finance.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3|75-Budget, dated 30-1-1976].

Recommendation (Serial No. 102, Para 7.34)

Wheat, Rice and Pulses constitute the staple diet of our people, but adequate attention does not appear to have been paid to the development of pulses as is evident from the fact that both the area under pulses as well as production of pulses have instead of increasing, appreciably declined. As against the production target of 15 million tonnes during 1973-74 representing the demand therefor, the actual production during that year was only around 9.8 million tonnes. Short availability against rising demand has resulted in an unprecedented increase in their prices so much so that pulses which are the main element of the poor man's diet are now fast becoming out of his reach. In this context, the Committee cannot over-emphasise the urgent need for improvement in the yield and quality of pulses so as to provide for the poor man a cheap nutritious diet. The Committee therefore recommend that Government should pay special attention to the development of pulses and intensify research thereon for evolving high yielding and improved seed varieties. At the same time the extension machinery should be geared up to lay greater emphasis on increasing the area under pulses and the production of pulses by utilising

the results of researches in the field. The areas having potential for increased output of pulses should be ear-marked and responsibility for research and extension work in the field of pulses should be allocated to agricultural universities/institutions on area basis and pulse basis.

Reply of Government (*Department of Agriculture*)

No doubt, on food front, there has been an increase in production of wheat, rice, bajra, jowar and maize, but on the other hand production of pulses has either remained stagnant or has shown a declining trend. Increase in production of rice and wheat is mainly due to the new and more efficient plant types that the research wing has made available. These dwarf varieties of wheat having high yielding potential have responded to fertilizers at all levels and to other inputs like irrigation. These varieties have very high degree of adaptability. There has been a tendency to diversion of area under wheat and rice which previously was occupied by the pulse crops. This is due mainly to the increase in area under irrigation and higher profitability of cereal crop farming in comparison to pulses. In fact there are no really high yielding varieties in pulses. Over and above this, the existing improved varieties of pulses are susceptible to diseases or insect pests, frost and water-logging thus making this group of crops unremunerative and uncertain resulting into low productivity with the national average yields ranging from 450—500 kg./ha.

The Indian Council of Agricultural Research initiated pulses improvement scheme in a number of States with effect from 1940 and breeding work was done for several years. The varieties which have been evolved, no doubt, exhibit increase over the local varieties, yet they are not as profitable as wheat during winter and rice, maize or bajro in kharif. The Indian Council of Agricultural Research intensified pulse research under the All India Coordinated Pulse Project from 1966. Although All India Coordinated Pulse Project has been in operation for the last 9 years but only few short duration varieties in tur (pigeon-pea), moong and cowpea have been evolved which are suitable as catch crops in multiple cropping sequences. These have proved helpful in bringing additional area under pulses. Efforts are being made to bring additional area under pulses by cultivation of these short duration varieties as catch crop, inter-crops or mixed or as parallel crops.

The Indian Council of Agricultural Research has now set up a Directorate of Pulse Research with necessary senior scale posts with Headquarters at Kalianpur (Kanpur) with a view to intensifying research on pulse crops.

The costly inputs like fertilizers are more remunerative to cereal crops under irrigated condition as compared to pulse crops. There is considerable hasitation on the part of the farmers to use fertilizers in pulse crops. However, the results of demonstration in Madhya Pradesh have shown that application of di-ammonium phosphate has increased the yield of pulses considerably. Recommendations are made for seed inoculation with rhizobium culture in new areas. Agronomical practices such as higher plant population and early weed control are also being recommended. Efforts are made to increase the pulses production substantially in the traditional pulse growing areas to improve the productivity by adopting the suitable agronomical practices evolved so far through research.

Emphasis is also being laid to undertake pulse development programme in specific areas in the selected districts which have the potential of raising the production of pulses. Under the Centrally Sponsored Scheme, 40 intensive pulses cultivation districts have been put under operation from 1974-75.

The responsibility of extension work to increase pulses production is with the State Agriculture Department. The crops Division of the Ministry of Agriculture has also provided additional staff to the State Agriculture Departments for pulses development work under the Centrally Sponsored Scheme. Therefore, the extension part is well taken care of. However, the Agricultural Universities need to be more actively involved to provide necessary research support through their experts considering the agro-ecological conditions prevalent in a particular region.

Reply of Government (*Department of Agricultural Research and Development*)

Realising the importance of Pulses in our diet ICAR started an All-India Coordinated Pulses Improvement Project in the year 1967-68 to evolve improved variety of Pulses and efficient agronomic techniques for realising genetic yield potentiality of newly developed varieties. Within short period this project could release

a number of improved varieties of different pulses for commercial cultivation as detailed below:

Crop	Year	Varieties
Arhar .	1971	Ageti Sharda Mukta
Moong .		Pusa Baisakhi Jawahar
Arhar .	1972	T 21, Prabhat, UPAS-120
Gram		G 24 G 235
Gram	1972	T 3
Moong .		T 44
Urad .		T 9, Mash 2
Pea		T 163
Lentil .		L 9-12

The improved agronomic and efficient plant protection practices for boosting yield per unit area were also evolved and recommended for adoption by the farmers.

Besides, a number of improved varieties possessing the resistance to major diseases and pests have been identifide which are at pre-release seed multiplication and 'On-farm' testing stages. Some of the most promising lines are as follows:

Improved varieites identified for pre- release seed multiplications:

Arhar	BS-1, Pant-A-2, Pant-A-3, NPWR-15, H 11, C 28.
Urad . . .	UPU-1, UPU-2 (Mosaic resistant) H 10, G 31, Selection-1.
Moong .	C-65, H 70-16, PS 7, PS 10, PS-16, ML-5, ML-8.
Gram .	H 208, H 355, G130, Ghaffa, JG62, BG1, F376, F61 JG221, BG2, F240, C414, 9-3, 7JG74.
Lentil .	T36, TT2, Pusa 4, Pusa 6, L-15-10.

However, these Pulse crop varieties with their lower yielding ability are unable to compete with the high yielding, fertilizer responsive varieties of cereals such as wheat, rice, maize, jowar and

bajra. As a result the farmers' preference has shifted to growing comparatively more remunerative high yielding varieties of wheat in place of rabi pulses and rice, maize, jowar and bajra in Kharif Season in place of Kharif pulses and the area under pulses gradually declined.

The other reason of relatively slow progress in pulse crop improvement is that in case of wheat, rice, sorghum, bajra and maize, we got germpalsm for high yielding varieties/hybrids/composites for use in our, breeding programme from all over the world. But in case of pulses we lacked such material as pulses have been evolved in India and some other countries for culture under marginal fertality and moisture conditions.

Since pulse crop varieties are unable to compete with high yielding States and 8 sub-centres located in relatively less important area and subsequently to increase the production by fitting them under multiple cropping; double cropping (Arhar-wheat, mix and inter-cropping with jowar, bajra, sugarcane, cotton, orchard crops and to grow them under rainfed condition with improved management techniques. For making their cultivation popular under such situations suitable short duration crop varieties and improved crop management techniques have been worked out and these are being popularised among farmers and extension agencies.

As regards intensification of pulse research, the All India Coordinated Pulse Improvement Project has been suitably strengthened during the Fifth Five Year Plan in respect of both research centres and scientific staff. During the Fourth Five Year Plan this project operated with 5 main centres located in main pulse growing States and 8 sub-centres located in relatively loss important pulse growing states/areas. But realising the importance of pulses in arresting mal-nutrition in our country the Fifth Plan the project will operate with 15 main centres and 13 sub-centres. Now there is no State or union territory left without a research centre. Important pulse growing State like U.P., M.P., Bihar, Maharashtra and Andhra Pradesh have been provided 2-3 research centres to cover the regional gaps. Backward and neglected areas particularly tribal inhabitated areas such as eastern U.P., Chhota Nagpur (Bihar); Rewa (M.P.) Coraput (Orissa) and Bustar (M.P.), Jammu and Kashmir and Assam etc., have been provided research bases to evolve improved varieties of pulses and cultivation technology of local importance for raising pulse production.

Further, the Coordinated Unit of the All India Coordinated Research Project has been upgraded into a Pulse Directorate supported heavily with scientific staff, laboratory equipments and farm facilities. It may be now located in Kanpur, one of the major pulse growing areas in the country. Similarly realising the importance of Rhizobium inoculm in Pulse production and fertilizer economy, 16 positions of Senior Microbiologist have been provided to be located one at each main research centre and Pulse Research Directorate. To have a proper linkage between research and development programme, it is proposed to shift Pulse Development Directorate from Lucknow to Kanpur so that well proven research results are passed on to the cultivator in form of a package programme. In addition, a Pulse Research Laboratory has been established at IARI to work on basic researches to feed back with basic information the pulse improvement work taken up under All India Coordinated Pulse Improvement Project.

Accordingly the total cost of the All India Coordinated Pulse Research Project has been raised from Rs. 35.00 lakhs in the Fourth Five Year Plan to Rs. 316.60 lakhs (excluding IARI share and Pulse research Laboratory IARI) of which ICAR/State Shares will be in proportion of 75:25 per cent basis.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation Serial No. 104, Para 7.36)

The Committee also note that after the amount is released to the State Governments under the scheme, no watch is kept by the Ministry over the expenditure actually incurred by the State Governments under the scheme. The Committee recommend that each Centrally Sponsored Scheme should have built-in-mechanism to monitor the progress and to ensure that the amount released to the State is being actually utilized by them for purposes under the scheme.

Reply of Government

The funds are allocated by the Government of India for implementation of the programme. The officers of the Ministry of Agri-

culture, New Delhi and Directorate of Pulses Development, Lucknow periodically visit the States to see and help in the proper implementation of the programme. On the basis of actual expenditure in first three quarters and the estimated expenditure for the fourth quarter (January to March), funds are released to the State Governments every year. The State Governments are required to intimate the actual expenditure incurred in a year and submit audit certificate in this respect. The State Governments are also required to submit a quarterly progress report of the physical and financial achievements made under the scheme.

The recommendation of the committee that each Centrally Sponsored Scheme should have a built-in mechanism for monitoring the progress and to ensure that the amount released to the States is being actually utilised by them for the purpose under the scheme, have been noted and brought to the notice of all the subject matter Divisions in the Department of Agriculture for necessary action.

[Ministry of Agriculture and Irrigation, (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 105, Para 7.37)

Since the development scheme for pulses has been in operation for over three years, the Committee recommend that operation of the scheme may be got evaluated within a period of six months by a body of experts so as to effect improvements.

Reply of Government

A Committee consisting of experts from Indian Council of Agricultural Research and Department of Agriculture reviewed the working of the Centrally sponsored scheme on development of pulses and suggested the following recommendations to improve effectiveness of the scheme.

(1) It was experienced that there was shortfall in utilisation of funds on subsidies provided in the plant protection component of the scheme. It was not practicable for the State Governments to stock the pesticides at sale points due to inadequacy of funds available with them for this purpose. It was decided that loans may be provided to the farmers so that they can buy the chemicals from the open market.

(2) The Gram and Arhar crops were attacked by pod-borer which cause considerable damage. Special ground operations will have to be organised as a prophylactic measure under the pulse scheme or under endemic area scheme. This will be an additional support for the control of pod-borer.

(3) Certain States like Haryana, Orissa, Maharashtra, Bihar and West Bengal have not appointed the Joint Director of Agriculture (Pulses) at headquarters and Pulses Development Officers in intensive cultivation districts and supporting staff as sanctioned under the scheme in 1973-74 and also for the entire period of the Fifth Plan. Consequently the pulses development work in these States has suffered. The State Government may be persuaded to appoint without further delay the staff sanctioned under the scheme.

(4) The use of diammonium phosphate in demonstrations has increased productivity of pulses from 40—85 per cent in Madhya Pradesh. This practice has not yet been popularised to that extent in other important pulse growing States. It was decided that farmers should be demonstrated the use of D.A.P. fertilizer in pulses and its price subsidized to encourage its use in the pulses production.

(5) The seed multiplication programme of good quality seed of indigenously improved short-duration varieties of pulses under the scheme has been organised but proper coordination between the Agricultural Universities and State Departments of Agriculture leaves much room for improvement. The amount of subsidy required for the multiplication of Breeder's seed under the Central scheme may be kept at the disposal of Agricultural Universities by the respective States. The Universities will be apprised well in advance about the allocation of funds. The Breeder's seed will be passed on by the Universities to the Director of Agriculture for further multiplication and distribution as certified seed to the farmers.

(6) The funds under the Centrally Sponsored Scheme to subsidise the procurement of certified seed should be placed at the disposal of the recently formed seed Corporations of the respective States so that they could plan for crop and variety-wise requirement of seed.

(7) The standard and quality of the minikit demonstrations being organised by the State Department of Agriculture may be improved by involving scientists of the Agricultural Universities.

(8) The status and strength of the Directorate of Pulses Development and Lucknow needs to be raised considerably to enable the Directorate to effecively supervise pulses development work in the whole country. Now that the Directorate of Pulse Research will be located at Kanpur with a higher paid Project Director, the Director (Pulses) will have much closer and effective liason with them only if he also commands similar status.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Comments of the Committee

The Committee hope that energetic and effective action will be taken by Government in pursuance of the recommendations of the Expert Committee.

Recommendation (Serial No. 107, Para 7.39)

The Committee note that a sum of Rs. 55.47 lakhs was spent on All Indian Coordinated Research Project on Pulses during the Fourth Plan period and that the Fifth Plan allocation therefore is Rs. 2.80 crores. The Committee consider that with allocation of this size it should be possible for the universities and research institutions concerned with the pulses development programme to intensify their work and develop high-yielding varieties of different pulses. The Committee desire that I.C.A.R. should pay urgent attention to the problem of development of pulses and monitor the research and development work being done in the field to achieve positive results.

All India Coordinated Pulses Improvement Project was initiated in the year 1967-68 to evolve improved variety of Pulses and efficient agronomic techniques for realising genetic yield potentiality of newly developed varieties. Within this period this project could release a number of improved varieties of different pulses for com-

mercial cultivation as detailed below:

Crop	Year	Varieties
Arhar	1971	Ageti Sarda Mukta
Moong . . .		Pusa Baiskhi Jawahar
Arhar .	1972	T 21, Prabhat, UPAS-120, G24, G235
Gram .		T3
Moong . .		T44
Urad . . .		T9, Mash 2
Pea .		T163
Lentil .		L9-12

The improved agronomic and efficient plant protection practices for boosting yield per unit area have been also evolved and recommended for adoption by the farmers.

Besides, a number of improved varieties possessing resistance to major diseases and pests have been identified which are at pre-release seed multiplication and 'On-farm' testing stages, some of the most promising lines are as follows:

Improved varieties identified for pre-released seed multiplications:

Arhar	BS-1 Pant-A-2, Pant-A3, NPWR-15, H11, C28
Urad	UPUI, UOU-2, (Mosaic resistant) H1C, G31, Selection
Moong .	G-65, H70-16, PS7, PS10, P8-16, ML-5, ML-8
Gram .	H208 J H355 G130 Ghaffa, JG62, BG1, F376, 61 JG221, BG2, F240, C414, 9-3, 7JG74.
Pea	T6114, HR12, 353-2B, 450-B.
Lentil	T36, TT2, Pusa 4, Pusa 6, L-15-10.

During the Fifth Five Year Plan suitable strengthening of All India Coordinated Pulse Improvement Project in matter of both Research Centres and staffing pattern is being done. The backward and neglected areas particularly tribal area which have been deprived of research bases have been given research centres for evolv-

ing high yielding varieties and agro-techniques of local importance for maximising productivity of the Pulses thus arresting mal-nutrition in the country. In addition, suitable cropping sequences also being worked out where Pulses may be taken as companion crops in multiple and inter-cropping with major crops like Sugarcane, Jowar, Bajra and Maize.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 108, Para 7.43)

The Committee observe that despite a cumulative expenditure of nearly Rs. 83 crores on consolidation of holdings, the problem of fragmentation of land not only persists but is deteriorating, if the data on the increase in the number of operational holdings thrown up by the Agricultural Census of 1971 is any guide. The Committee recommend that Government should initiate a detailed study to analyse the causes of continued fragmentation of land into small and smaller holdings, its effect on agricultural production, and the extent to which consolidation work has been able to control the problem. In the light of the conclusions of the study, Government should initiate suitable measures to attack the problem at its root so as to prevent or atleast minimise the scale of fragmentation of land in the interest of increasing agricultural production.

Reply of Government

Consolidation of holdings in India: A complete review of the laws, the manner of implementation visualised and the tasks that such law may or may not fulfil is to be followed by an examination of the empirical data relating to both fragmentation and consolidation using the survey data available relating to the size distribution of fragments in different parts of the country, with a view to making two-multi point comparison. The scheme does not involve any first hand collection of data from the field. Department of Agriculture has already started a research Centre by name "Land Reform Centre" in the Gokhale Institute of Politics and Economics, Poona. The project suggested by the Estimates Committee was referred to the Land Reform Centre and the Centre has agreed to undertake the project.

This study will be undertaken concurrently from January 1976 and it is hoped it will be completed in a Year's time.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 109, Para 7.52)

7.52. The Committee recommend that Government may initiate a systematic study of production capacity of holdings of different sizes in different areas such as irrigated multicrop, irrigated single crop, dry multicrop, dry single crop and arid land under conditions of optimum, medium and scare availability of inputs. The results of the study would be useful in assessing the economic viability of various land ceilings from the points of view of the individual farmers as also the need for increasing agricultural production, particularly of foodgrains.

Reply of Government

Ceiling on land holdings: A comprehensive review and comparison of existing ceiling laws in different States of the country is to be followed by collection of data relating to levels of income on farms of the ceiling sizes of holdings. The data will be compiled from the various farms cost-returns studies undertaken in different parts of the country from time to time. Department of Agriculture has already started a research Centre by name "Land Reform Centre" in the Gokhale Institute of Politics and Economics, Poona. The project suggested by the Estimates Committee was referred to the Land Reform Centre and the Centre has agreed to undertake the project.

This study will be undertaken concurrently from January 1976 and it is hoped it will be completed in a year's time.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3|75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 110, Para 7.63)

The Committee underline the need for greater attention being paid to educating the farmer and small trader in the scientific store of foodgrains so as to minimise the losses due to inadequate or defective storage which are at present sizeable. The Committee consider that the most effective way of publicising the need for better storage would be through special programmes on the radio net work and projected visuals like short films and news reels. Non-projected visuals such as slides and exhibitions, would also be effective. Publicity should also be given through demonstrations and written literature produced in local languages. There should also be a system of periodical inspection of godowns of farmers and village traders by extension functionaries and also of the godowns of traders at grain

mandies and those at the premises of mills and factories processing foodgrains.

Reply of Government

Government are conscious of the need for greater attention to education of farmers and traders in scientific storage of foodgrains. Various measures including those contained in the recommendation are already being taken. Progress made and results achieved are constantly reviewed and these measures are strengthened and extended from time to time.

In referring to periodical inspections of godowns of farmers, etc. by extension functionaries, the Committee are presumably referring to the desirability of frequent and constant personal contact with farmers and traders. Under the Save Grain Scheme, storage premises of farmers and traders are already being visited by the Save Grain teams from the point of view of educating farmers and traders on proper storage techniques, etc. consistent with staff and resources available.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 111, Para 7.64)

The Committee also suggest that Government should take steps to intensify research on development of cheap and easy methods of Post Harvest Processing of Foodgrains particularly paddy and to publicise the results thereof in the manner aforesaid so as to maximise the availability of Foodgrains.

Reply of Government

Government steps to intensify Research and Development of cheap and easy methods of Post Harvest Processing of Paddy.

Department of Food, Government of India, have been co-ordinating and initiating efforts at development of improved techniques of Rice Milling by sponsoring research at various institutions like the Paddy Processing Research Centre (PPRC), Tiruvarur; the Central Food Technological Research Institute (CFTRI), Mysore, Fuel Research Institute (FRI), Dhanbad; Rice Process Engg. Centre (RPEC), Kharagpur; and the Annamalai University, Chidambaram etc. The emphasis has been on the development of simple techniques that can be easily adopted by rice millers at a cheap cost so as to reap the maximum benefit quickly. Some of the lines on which work has

been done and the stage at which the technology stands, are indicated below:—

(1) *Improvements in Paddy Drying*

Improved mechanical drying based on the Louisiana State University (USA) design were introduced in the country sometime ago. In order to bring down the cost of mechanical drying, the Deptt. of Food have now completed the development of a new type of paddy husk furnace in collaboration with the Fuel Research Institute, Dhanbad. This furnace provides the hot air needed for mechanical drying by burning the bye product husk from Rice Mills. By combining this furnace with the L.S.U. dryer, drying cost can be reduced. A demonstration of this unit is at present taking place in a private rice mill at Ahmedpur, West Bengal.

The drying cost can also be reduced by the use of simpler types of mechanical dryer units such as the recirculatory batch type dryer developed at the R.P.E.C., Kharagpur. The RPEC, Kharagpur was established by the Department of Food for promoting Research, and for training Rice Mill Engineers. Demonstrations of this recirculatory batch type dryer have already been completed in the Andhra Pradesh and more extensive field application is being planned. Another simple type of dryer called the 'Cup and Cone' dryer was designed and developed by the Department of Food and Fabricated in the P.W.D. workshops in New Delhi. This is at present being demonstrated in the F.C.I. rice mill at Kuttalam in Tamil Nadu. The above two dryers reduce capital cost of Mechanical installations for drying paddy. The use of Solar Energy for developing hot air required in mechanical dryers is another cost reduction attempt that was investigated in the Annamalai University under a scheme sponsored by the Department of Food. This is now being scaled up for field trials and extension. The above improvements in paddy drying help in avoiding quality deterioration and increasing rice out-turn. This is particularly necessary in the case of the newly developed paddy varieties and during monsoon harvests.

(2) *Improvements in Paddy Par-boiling*:

Since the conventional parboiling techniques give rise to considerable wastage and also fungal damage, mal odours etc. the improved system developed by the Central Food Technological Research Institute, Mysore, is being popularised at many places. However, with a view to bring down the capital cost and the operat-

ing expenditure on this system, several new innovations are currently being planned. One such technique developed at the Paddy Processing Research Centre, Tiruvarur, utilises cold soaking process but with the addition of a chemical (Sodium Chromate) for preventing fungal damage and bad odours. This system is now under the consideration of the Health Ministry for clearance from the toxicity point of view. Rice par-boiled in this method is free from objectionable odours. Also the heat energy required for hot soaking is saved in this process. Another Improvement also developed at the Paddy Processing Research Centre, Tiruvarur, is a Pressure parboiling system in which the soaking of paddy is carried out inside a pressure vessel where paddy is streamed and gelatnised. Steam applied under pressure causes both soaking and parboiling. As a result, the leaching losses are eliminated and the time of parboiling is also reduced. There is also saving in drying time. This method is being scaled up for commercial use. Field scale demonstration of a continuous type of parboiling system, which is a modification of the C.F.T.R.I. process, is also being planned in a rice mill owned by the Tamil Nadu Civil Supplies Corporation. Additionally, an R & D scheme for reducing parboiling cost as well as to eliminate the leaching losses, discolouration etc. has been worked out and detailed specifications, designs and drawings have been prepared. This method utilises the Humid Hot Air Soaking principle and re-circulation of hot air for energy conservation. Pilot Scale Studies are being taken up.

(3) *Mini Rice Mills*

In order to enable small rice mill owners, operating single hullers, also to benefit from modernisation, certain small capacity modern rice mills have recently been developed. Already two firms have come up with proto type uits which have been evaluated. Some more firms are also working on similar mini rice mills that can replace single hullers. The capacity of this unit varies from 250kg/hr. to 500 kg/hr. so that, at a cost of around Rs. 20,000, a small rice milloperator would be able to modernise his mill and increase rice yields. The bran produced by these mills would also be of superior quality.

(4) *Husk Furnace for Paddy Drying*

To develop hot air required in mechanical dryers, in addition to the design of husk furnace developed by the Fuel Research Institute, Dhanbad, there are a few more models constructed and demons-

trated at various places. These are the step-ladder furnace, put up in some mills in Orissa, the R.P.E.C. husk furnace, and also the husk furnace, having a Conical Fin Heat Exchanger installed by a Kanpur firm. All these designs are being evaluated so as to identify the most economical unit that can serve the Industry best.

(5) *Rice Bran Stabilisers.*

Rice Bran of high purity which is being produced by modern rice mills is good for oil extractions. This oil can be of edible quality if bran is stabilised as soon as it is produced in the mill. For such stabilisation, several units have been developed by various research institutions. The C.F.T.R.I., Mysore and R.P.E.C. Kharagpur have developed two different units working on different principles. Additionally, a private rice miller in West Bengal has used a steam jacket screw type stabiliser. There are also some other possible stabiliser designs such as the Jadavpur University design, the oil jacket heating system etc. Field scale evaluation of various units is being planned with a view to standardising the techniques and machinery. By proper planning and selection of locations, the modern Rice Mill when tied up with Solvent Extraction Plants, would greatly help in the production of edible grade Rice Bran Oil which can ease the cooking oil shortage significantly.

General

The Paddy Processing Research Centre, Triuvarur have also been working on the preservation of wet paddy during the monsoon period. Various chemicals are being tried in this connection.

The Department of Food have worked out plans for improving the conventional ground level parboiling tanks, by a simple technique Schemes have also been drawn up for developing conduction parboiling methods and for converting ordinary soaking tanks into Pressure soaking vessels. The Paddy Processing Research Centre have standardised a procedure for improving the operation of single huller rice mills by separating the de-husking process from the polishing process. This is becoming popular and more extensive publicity and demonstration are being planned. This would enable small rice millers to eliminate losses taking place in their hullers.

In order to popularise the results of Research and Development, the Department of Food are holding demonstration workshops at various centres in the country. Manufacturers of modern Rice Mill Machinery are invited to demonstrate the working of their units. Experts are also invited to explain the newer processes and the economies that can be effected in Rice Processing. By such exchange

of ideas between experts, rice millers and manufacturers, the latest technology in modernising Rice Processing is being popularised. The Rice Process Engineering Centre, Kharagpur is also arranging for short-term courses for rice millers and mill managers, besides regular academic programmes leading to higher Engineering degrees.

Co-ordination Work and Field Extension

For co-odrinating the efforts of the various Research Institutes, and for speedy implementation of the successful techniques, a Rice Mill Coordination Committee is functioning in the Department of Food. Though frequent consultations and meetings with the concerned agencies, priorities are being assigned for various R & D works to be taken on hand. Also the Department of Food have programmes for starting Regional Field Extension Centres in the major rice producing States with a view to helping the rice millers in the area, to modernise their equipment speedily and to adopt improved techniques without any difficulty. Steps are also being taken to standardise the quality of Rubber Rolls and other components of modern rice mills. The Indian Standards Institution have been requested to formulate a code of Practice indicating Performance Criteria for various items of modern rice processing machinery.

Department of Food have brought out literature on various aspects of Modern Rice Milling for Publicity among Rice Millers. These are distributed among the Rice Millers during seminars and workshops arranged by the Department in various regions. Several indigenous manfacturers have now started making modern Rice Mills of various types and capacities. Initially only three firms were producing Modern Mills and that too with foreign collaboration, but now as many as thirty six firms are manufacturing and selling Modern Rice Mills at competitive price. This is an index of the popularity of Modern Rice Mills.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 113, Para 7.74)

The Committee note that a Minikit Programme of Rice has been implemented during the Fourth Plan period in 60 selected districts at a cost of nearly Rs. 5 lakhs and that during the Fifth Plan period the programme for rice will be extended to cover 150 districts and similar programmes will be launched for wheat and millets with

a total outlay of Rs. 3 crores. The Committee feel that there is need for a proper evaluation of the Minikit Programme of rice which has been in operation for over three years so as to assess its usefulness in increasing the production of rice. They recommend that a time-bound study should be undertaken in this regard and on the basis of its conclusions necessary steps should be taken to make it more effective.

Reply of Government

The above recommendation of the Committee has been noted. In fact, the Ministry have already proposed to get the Minikit Programme of Rice evaluated by the Programme Evaluation Organisation of the Planning Commission. Necessary information in this behalf is being obtained from the Directorate of Rice Development, Patna. Thereafter, Programme Evaluation Organisation of the Planning Commission will be approached to conduct a time-bound study to evaluate the Minikit Programme of Rice, as suggested by the Committee.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

CHAPTER III

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

Recommendation (Serial No 1, Para 1.13)

Food is the basic human need. It is, therefore, imperative that its overall availability and production should be most carefully watched. The indigenous production of foodgrains is to be planned on a long term basis as well as from season to season. For any developmental planning on a realistic basis it is absolutely necessary that the planing agency should be properly armed with basic data which is fairly accurate and is available on a timely basis. This is possible only if the data collection of procedure and machinery are streamlined. The Committee regret that the existing procedure and machinery for the collection of agricultural statistics have not been able to throw up accurate data on a timely basis so as to be useful for effective planning of production of foodgrains. The Estimates Committee had on an earlier occasion also commented upon the paucity of data in this regard. In paragraph 2.7 of their 61st Report (Fifth Lok Sabha) on the Civil Supplies Organisation, the Committee had ovserved that "unless Government arranged to assess reasonably correctly the crop prospects they would not be able to take timely measures to procure the foodgrains within the country and/or import them from outside or initiate concerted measures for implementing contingency emergency agricultural production programme." The Committee reiterate the need for a streamlined system of data collection in respect of crops, particularly of foodgrains. Noting that Government propose to implement certain new schemes for collection of agricultural data during the Fifth Plan period they would like that the working of these schemes should be kept under constant review so as to ensure that the data collected is timely and reliable to form a sound basis for policy formulation and production planning in respect of foodgrains.

Reply of Government

The Estimates Committee had raised the issue in para 2.7 of the sixty first report (Fifth Lok Sabha) on the Civil Supplies Organisation. The reply furnished on the action taken on the recommenda-

tion to the Estimates Committee is enclosed. After the clarification was offered on the action taken on the recommendation, the Estimates Commitee had indicated their desire not to pursue the matter further. It may be mentioned that arrangements exist in the NSSO and the Ministry of Agriculture and Irrigation for periodic review of the progress of implementation of the scheme of timely reporting of estimates of area and production of principal crops, scheme for establishing an agency for collection of agricultural statistics in Kerala, Orissa and West Bengal and scheme for improvement of crop statistics.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1975].

Recommendation (Serial No. 3, Para 1.25)

The Committee note that in 1971-72, an area of nearly 160 lakhs hectares was in the category of 'culturable waste' which could be used for agriculture purposes. In view of the continuing shortfall in the production of foodgrains to meet the demand in the country, the Committee recommend that Government should launch a time-bound rogramme to reclaim 'culturable Waste' for agricultural purposes and to increase the areas under foodgrain production so as to maximise production and achieve self-sufficiency in this vital field.

Reply of Government

At the outset, it may be stated that the 'Land' is a State subject under item No. 18 of the List II—State list of the 7th Schedule of the Constitution of India. As such, the programme of reclamation of culturable waste land is being administered by the respective State Governments. The culturable waste lands are defined as below:—

> "These include all lands available for cultivation whether not taken up for cultivation or taken up for cultivation once, but not cultivated during current year and last five years more in succession. Such lands may be either fallow or covered with shrubs and jungles which are not put to any use (They may be assessed, unassessed and may be in isolated blocks or within cultivated holdings) Land once cultivated but not cultivated for five years in succession shall also be included in this category at the end of the five years".

In view of this, operations required to bring these lands under normal cultivation, will very from place to place. Such operations

of normally designated as reclamation. There may be some specialised local problems like salinity, alkinity, water-logging, excess of any particular mineral element, damage due to erosion, etc. which require special type of operations to deal with these soils.

The total geographical area of the country is 325 million hectares. Out of this, about 16.00 million hectares was in the category of culturable waste. The potential of those soil for food production was recognised much early. Because of the ever increasing pressure of population of limited land resources, there have been intense pressures to bring land under plough and efforts have been directed towards putting such of the culturable waste lands as can be economically reclaimed to plough. In course of the Four-Five Year Plans, the area under cultivable wastelands has decreased from 23.00 million hectares in 1950-51 to 16.00 million hectares in 1971-72.

A wasteland Survey and Reclamation Committee popularly known as Uppal Committee was appointed in 1959 to assess the extent of land that can be brought under cultivation. Land in compact blocks of 100 hectares and above only where considered. The Committee located 0.6 million hectares of wasteland in 13 states. After that another survey was taken up to locate lands even to the extent of less than 100 hectares for the purposes of cultivation by the Ministry of Agriculture. Some 2.3 million hectares were located as a result of this survey. However, the scheme was transferred to the State sector with effect from 31-3-68 as per the decision of the National Development Council.

Efforts were made by the State Governments towards reclaiming waste lands wherever economically feasible and allotting it to the people. The figures given below are as per the record of the Division for the period up to November, 1972:—

	Area reclaimed (in million hectares)
First Plan	1·12
Second Plan	0·92
Third Plan	1·88
1966-67	0·14
1967-68	0·09
1968-69	0·08
Fourth Plan (Upto Nov., 72)	0·20
	4·43

As mentioned earlier, reclamation of such lands is a State concern. However, from time to time, the Government of India sponsored some schemes which were directly benefiting in reclamation of such lands. During the 3rd Plan period, one Centrally sponsored scheme for reclamation of cultivable waste land and resettlement of landless agricultural labourers was taken up in Andhra Pradesh, Assam, Bihar, Gujarat, Kerala, Madhya Pradesh; Maharashtra; Karnataka, Orissa, Punjab, Tamil Nadu, Uttar Pradesh, Tripura and West Bengal. Under the scheme 0.19 million hectares of land was reclaimed. An expenditure of Rs. 6.14 crores was incurred by the Government of India as grants and loans to the State Governments concerned. During the Fourth Five Five Year Plan, a Centrally sponsored scheme for reclamation of various lands was taken up as a pilot measure, to determine the technical and economical feasibility of large scale ravine reclamation both for agricultural production and for aforestation in the States of Madhya Pradesh, Uttar Pradesh, Gujarat and Rajasthan. Under this scheme, a total area of 6,620 hectares has been treated with an estimated expenditure of Rs. 1.86 crores. During the Fifth Five Year Plan, the following pilot schemes are taken up in the Central sector for reclamation of land in the States:

1. Pilot Projects for protection of table land and stabilisation of ravines areas in Uttar Pradesh, Rajasthan, Gujarat and Madhya Pradesh at a total cost of Rs. 3 crores.
2. Projects for reclamation of saline, alkali water-logged and acid soils at a cost of Rs. 13 crores. In this scheme, the Government of India will provide assistance to the States for gypsum and lime application as chemical amendments to the alkali and acid soils respectively.
3. A pilot project for Land Colonisation for settlement of landless families on culturable waste land in compact blocks of 1200 acres each in the States of Andhra Pradesh, Bihar, Haryana, Maharashtra, Orissa, Rajasthan, Uttar Pradesh, West Bengal, Assam and Arunachal Pradesh are proposed to be taken up for the settlement of landless families for developing into self-supporting colonies at a total cost of Rs. 5 crores.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dated the 30-1-75].

Comments of the Committee

The recommendations of the committee may be forwarded to the State Governments for speedy implementation.

Recommendation (Serial No. 4, Para 1.26)

The Committee note that the Central Salinity Research Insti-

tute, Karnal has been carrying on study, research and developmental work in the field of soil salinity since October, 1969 when it was set up and that a sum of Rs. 6.5 crores has been spent by it during the Fourth Plan period. The Committee recommend that the research and development work done by the Institute and its achievements in extension work may be critically assessed by an appropriate technical authority with a view to improve and intensify its activities.

Reply of Government

The Council regularly evaluates the achievements of its Research Institutes by setting up of suitable achievement audit committees which also give the recommendations for further strengthening of research training and extension activities of the Institute. Leading scientists in the concerned disciplines are chosen as members of the Committees which are set up every third year. In case of CSSRI, Karnal, the achievement audit committee was set up in December, 1972 which evaluated its activities and gave recommendations for further strengthening wherever necessary. The Institutes' Fifth Five Year Plan proposals have taken into consideration the recommendations of the achievement audit committee for strengthening of its programme which have since been sanctioned. The next achievement audit committee for this Institute is now due and will soon be set up.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budjet, dated the 30-1-75].

Comments of the Committee

The Achievement Audit Committee for the Institute should be appointed immediately. It should have a preponderance of outside experts so that a fair idea of the performance of the Institute could be had for effiecting improvement.

Recommendation (Serial No. 20, Para 2.55)

The Committee note that Government are envisaging the setting up of Command Area Development Authorities for about 50 major projects, covering an area of 15 million hectares during the Fifth Plan period and that these development authorities will take necessary measures for speedy construction of field channels, levelling of land, providing adequate drainage facilities etc., to bridge the gap between potential created and its utilisation as also to ensure more economic use of water and its efficient distribution. The Committee recommend that before setting up such Authorities, the financial implications of the scheme should be properly worked out and a

constant watch should be kept that the overhead expenditure are the minimum and that the Authorities actually subserve the objective of securing cent per cent utilisation of the potential created. The Committee would suggest that the scheme of the Command Area Development Authorities should be first tried out on a pilot basis in respect of one irrigation project and such projects Authorities should be set up in respect of the other projects only if the pilot scheme is found successful.

Reply of Government

In the above recommendation of the Estimates Committee it has been suggested *inter alia* that the scheme of Command Area Development Authorities should be first tried out on a pilot basis in respect of one irrigation project and such Authorities should be set up in respect of the other projects only if the pilot scheme is found successful.

2. For a proper appraisal of the proposal contained in the Recommendation, it is necessary to look back at the sequence of developments that have already taken place.

3. Taking the country as a whole, about 45 million hectares were scheduled to receive irrigation (from all sources) by the end of 1973-74. The total cropped area in the country by the end of the Fourth Plan was estimated at about 169 million hectares. Broadly speaking about 80 per cent of the gross irrigated area is generally under foodgrains production and the rest of the irrigated area is under commercial and a cash crops. Even if an average yield of 3 tonnes of foodgrains per hectare of irrigated land, at a very conservative estimate, is taken into consideration, the irrigated area (80 per cent of 45 million hectares) should give 108 million tonnes. Again it would not be unrealistic to assume about 20 per cent of this yield *viz.*, 0.6 tonnes per hectare from unirrigated lands. A little calculation will show that this unirrigated land should yield about 60 million tonnes making a total of 168 million tonnes (108 million tonnes from irrigated and 60 million tonnes from unirrigated). The actual production, however, is far below this figure. This clearly brings out that the irrigation potential created in the country is not being utilised properly and that the benefits derived from the huge investments on irrigation are far below expectation. The large public sector investment of about Rs. 3000 crores in major and medium irrigation projects by the end of the Fourth Five Year Plan period highlights the necessity of optimum utilisation of the irrigation potential.

4. The question of an integrated area development approach in irrigation commands came up for consideration before the Irriga-

tion Commission. The National Commission on Agriculture also considered this problem exhaustively and came to the conclusion that much coordinated work is required to be done by the Departments of Irrigation. Soil Conservation and Agriculture to organise the best use of the Irrigation system by modernising the irrigation distribution system down to the smallest outlets, and adjusting the cropping pattern to the soil and agro-climatic conditions of the Command Areas. The accepted policy in respect of irrigation projects is that distribution system is provided at Government cost down to about one cusec outlets and field channels in the terminal command are to be provided by the beneficiaries themselves. The size of the outlet command envisaged under the Command Area Development Projects has, therefore, been limited to the area command by an average field outlet in the publicly owned and maintained part of the system, *i.e.*, about 40 hectares.

5. Action for formulation and implementation of the Command Area Development Programme during the Fifth Five Year Plan period started as early as the first half of the year 1973. Discussions were held with the concerned State Governments in regional meeting. There was a general concensus that a unified organisation with a direct line of command should exist in so far as the Departments of Irrigation, Agriculture, Soil Conservation and Corporation were concerned. The Chief Ministers/Governors of the State Governments concerned were addressed on the 16th August, 1973 by the Union Minister of Agriculture requesting them to initiate action for the implementation of the programme and it was requested therein that a Command Area Development Authority should be established for each important irrigation command. A model set up of the Command Area Development Authority was also circulated to the State Governments by Union Secretary of Agriculture in his letter dated 1st September, 1973.

6. The Draft Fifth Five Year Plan made a provision of Rs. 120.00 crores in the Central Sector, and Rs. 96.63 crores in the States Sector for the Command Area Development Programme. In addition, an investment of Rs. 210 crores is envisaged from institutional sources. It is proposed to take up the integrated command area development programme in 51 selected commands during the Fifth Five Year Plan period having a total culturable command area of about 13 million hectares.

7. A budget provision of Rs. 15 crores was made in the Central budget estimates for 1974-75 but it was later reduced to Rs. 10 crores as a measure of economy. A budget provision of Rs. 16 crores has been made for the year 1975-76.

8. The Command Area Development Programme for the Fifth Plan period has already been considered in detail and approved by the Public Investment Board of the Government of India in their meeting held on the 10th December, 1974. The Finance Minister has also approved this programme. The Cabinet Committee on Administration also considered this matter in their meeting on the 4th September, 1974 and approved the proposals made in this regard by the sub-Group on Agricultural Development *vide* Part VI of their report. This programme having been cleared with all the concerned authorities is now gaining momentum though the degree varies from State to State. In this connection it may also be mentioned that agreements for loan assistance from International Bank for Reconstruction and Development/International Development Association have also been signed for Command Area Development Projects in respect of Rajasthan Canal (Rajasthan) and Chambal (Rajasthan) command areas in Rajasthan State and Chambal command area in Madhya Pradesh. The World Bank has signed these agreements after prolonged appraisal and having been satisfied about the feasibility and desirability of these Command Area Development Projects. A few other command area development projects are also in the pipeline for further loan assistance from the World Bank.

9. The operational aspects of land development in command areas have been studied by means of small scale Soil and Water Management Pilot Projects in some of the States. These studies provide a basis for the implementation of the land development programme in the irrigated command areas. For assisting in the implementation of this programme, steps have also been taken by this Ministry to arrange training courses for senior officers of the State Governments concerned with Command Area Development work at the National Institute of Community Development, Hyderabad. Four such courses have already been held during 1974-75. A Central Committee on Acceleration of Irrigation Projects and Common Area Development consisting of representatives of the Planning Commission, Finance, Agriculture (including Irrigation) Central Water and Power Commission has been constituted under the Chairmanship of Member(s), Planning Commission for providing broad guidelines for this programme. A Technical Committee for going into various technical aspects of Command Area Development Schemes consisting of representatives of the Ministry of Agriculture and Irrigation, Planning Commission, ICAR, CWPC, and some State Government officials has also been constituted, and has met thrice so far. A number of State Governments have already constituted Command Area Development Authorities and such Authorities are function in 32 irrigation command areas.

10. It will be observed from the foregoing paragraphs that the Command Area Development Programme has already proceeded ahead. It is a matter of the highest importance that the production of foodgrains in the country should be stepped up by every possible means. One important step in this direction is to increase level of production of foodgrains in the irrigated areas in the country by optimum beneficial utilisation of the irrigation waters, which in turn, calls for proper development of the agricultural land, including shaping and levelling of land, construction of field channels and field drains, introduction of rotational irrigation, etc. These operations of great complexity and difficulty involving consolidation of holdings, reshaping of land holdings into regular shapes, ground survey for the most suitable layout of the field channels and field drains, etc. In view of the multiplicity of factors involved in these operations and the inherently slow progress in the completion of these operations, it is essential that this programme of land development should be taken up simultaneously on a large number of irrigation areas if any appreciable progress area-wise is to be achieved in the foreseeable future. Even with the best of efforts, the complete development of a sizeable irrigated area could perhaps be achieved only in a period extending for 8—10 years. If, therefore, the Government were to suspend all activities in the direction of land development in the various commands, expecting one, then this would push back the progress the land development in the irrigated areas in the country by a period of 10 years or more. It is, therefore, of utmost importance that the development of land in the irrigated areas with a view to optimising the benefits from irrigation waters should be attempted concurrently on as much of the areas as possible.

11. In view of the position set out above, the Government of India find itself unable to accept this part of the recommendation of the Estimates Committee.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated the 30-1-75].

Recommendation (Serial No. 25, Para 2.81)

The Committee note that the number of Public Tubewells was anticipated to rise to 20 by the end of the Fourth Plan period risen to 20. The Committee would like Government to review and evaluate the scheme of Public Tubewells and if it is found to be successfully working on No Profit—No Loss basis, the scheme should be expanded to cover larger areas as it would serve the larger interests of the small and marginal farmers.

Reply of Government

There are certain deficiencies in the operation and management of Public Tubewells and efforts are being made to remove them. Most of the States have now set up autonomous tubewell corporations to improve the situation. Consistent efforts are being made to find additional financial resources for undertaking a larger programme of public tubewells, wherever it is feasible, for the benefit of small and marginal farmers.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated the 30-1-75].

Recommendation (Sercial No. 28, Para 2.84)

The Committee are unable to appreciate as to why figures of targetted number of diesel pumpsets to be made available in the concluding year of the Fifth Plan *i.e.*, 1978-79 are "Not available" with the Government when similar targets have been indicated to the Committee in respect of other items concerning minor irrigation such as Dug Wells, Private Tubewells, Public Tubewells and Electric Pumpsets.

Reply of Government

At the time when draft Fifth Plan was formulated the country was faced with acute shortage of diesel oil and therefore a clear picture about the feasible target for diesel pumpsets could not emerge. It is now visualised that after taking into account the replacement of the existing diesel pumpsets which go out of use, there would be a net addition of 10,00,000 diesel pumpsets in the country during Fifth Plan raising their number from about 17,00,000 at the end of Fourth Plan to 27,00,000 in the end of Fifth Plan.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated the 30-1-76].

Recommendation (Serial No. 29, Para 2.89)

The Committee note that the progress of implementation of the World Bank assisted Agricultural Credit Projects is very slow particularly in the State of Bihar, Madhya Pradesh and Uttar Pradesh while it is quite impressive in the States of Tamil Nadu and Maharashtra. In the case of Bihar and Madhya Pradesh, against the Project cost of Rs. 45 crores each, the total disbursements were only Rs. 2 crores and Rs. 4 crores respectively. In the case of Uttar Pradesh against the Project cost of Rs. 54 crores, the disbursements by 30.6.74 were only Rs. 6 crores. In the case of Tamil Nadu and

Maharashtra, however, against the Project costs of Rs. 47 crores and Rs. 38 crores the disbursement upto 30.6.74 were as much as Rs. 20 crores and Rs. 17 crores respectively. The Committee are unable to appreciate as to why there has been so much imbalance as between the different states in the implementation of the Projects. The Committee are surprised that on the one hand there is the plea of financial constraints for not making sufficient progress in schemes for agricultural production, on the other hand there is lack of utilisation of large credits and finance which are available under the World Bank Schemes, particularly in the States like Uttar Pradesh, Bihar etc. This is indicative of lack of determined efforts, coordinated and advanced planning and building up of field organisation so as to put to effective use the finances which are already available. The Committee would like the Planning Commission, the Department of Agriculture and the Department of Banking to review at the highest level the lack of progress in implementation of the World Bank Schemes with the State Governments concerned, particularly Uttar Pradesh, Bihar etc., so as to speed up the implementation of these projects, Government should lay down firm physical time targets and prepare a time bound programme for implementation of these projects. The States Governments as well as the financial institutions concerned should be directed to create on an urgent basis, adequate organisation to utilise the funds and achieve the physical targets laid down for them. There should also be a system of monitoring on a centralised basis the progress of the Projects to ensure their timely implementation. The Committee also stress tht the benefits available under the World Bank Schemes should be adequately published through Block Committees etc. so that useful schemes which would effectively contribute towards agricultural production are generated at the gross root level.

Reply of Government

Progress of implementation of IDA Credit Projects is being reviewed from time to time in the Department of Rural Development. The IDA assisted credit projects in the States of Uttar Pradesh, Bihar and Madhya Pradesh are in various stages of implementation and the disbursement of funds have been stepped up and are quite encouraging.

In Bihar, against a project cost of Rs. 45 crores, the disbursement by LDBs and commercial banks by the end of June, 1975 amount to Rs. 8.48 crores. In Uttar Pradesh, against a project cost of Rs. 54 crores, the disbursements amount to Rs. 15.47 crores.

Government are sought to be removed by appropriate measures.

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[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dt. 30-1-1976]

Recommendation (Serial No. 39, Para 3.23)

The Committee are concerned to note that soon after the Draft Fifth Five Year Plan was formulated, the fertilizer production targets have had to be revised down-ward substantially. The production envisaged in the Draft Fifth Plan for 1974-75, 1975-76 and 1978-79 was 18, 28 and 52 lakh tonnes respectively. The actual production during the first half of 1974-75 was however only 6.7 lakh tonnes and the revised estimates of production for the whole year are indicated as 15.5 lakh tonnes only. The targets of production for 1975-76 have also been reduced from 28 lakhs tonnes to 20.9 lakh tonnes and for 1978-79, the terminal year of the Fifth Plan, from 52 lakh tonnes to 42 lakh tonnes. Even under the original plan projections, the import requirements for meeting the demand for fertilizers were sizeable. With the down-ward revision of production tagets, the pressure on imports would increase substantially if the demand was to be met in full.

The Committee, in paragraphs 2.75 and 2.76 of their 40th Report on Fertilizers (1972-73) had observed the considerable delays taking place in the commissioning of fertilizer projects in the Public Sector. At that time, the Committee were informed that Coordination Committees had been appointed for Cochin and Durgapur projects to review critically the progress of implementation of these projects at regular intervals. The Committee were also informed at that time that the procedure for economic appraisal of the projects and the release of foreign exchange therefor was being streamlined and the engineering and equipments for the fertilizer projects were being standardised so as to facilitate setting up of identical plants speedily. The Committee had suggested that Coordination Committees on the pattern of those of Cochin and Durgapur projects should be set up for each of the other projects then under implementation. The Committee regret that despite these earlier observations and recommendations of the Committee, little progress has been made in setting up the licensed capacities in the Public Sector and that many units have not gone on-stream for years. The Committee would like to point out that delays in commissioning of the fertilizer plants are leading to progressive escalation of cost of setting up the projects and continuing drain on the

In Madhya Pradesh against a project cost of Rs. 45 crores, the disbursements amount to Rs. 18.09 crores.

From the above, it may be seen that the performance of financing institutions in 1974-75 has improved considerably and it will further improve in the future. The main reasons for shortfall in achievement are the following:—

(i) High level of overdues makes some of the land development banks ineligible for an unrestricted programme. The concerned State Governments have been separately addressed to take various action for reduction of overdues. In order to make the land development banks eligible for refinance from Agricultural Refinance & Development Corporation concerned State Government contribute to the share capital of the land development banks to bring down the level of overdues to below 25 per cent. This is a temporary relief given to the financing institutions and cannot be continued as a permanent measure as it strains the financial resources of the State Government. The permanent solution to the problem, however, will be to take effective measures for timely recovery of the loans.

(ii) The programme received a setback to some extent due to delay in getting service connections for the pumpset units. This problem has been discussed in detail with the ARDC, Rural Electrification Corporation and the State Electricity Boards of the concerned State Government. It has now been decided that the land development banks will provide long-term loans to the State Electricity Boards for giving service connections to the agriculturists and avail of refinance from the ARDC for this purpose. It is expected that this measure will help bigger investment.

(iii) The performance of the commercial banks in implementing the IDA Projects has not been upto the mark in some areas and the Department of Banking have been requested to issue of appropriate guidelines to the commercial banks to step up disbursements in their areas of operation.

(iv) Other operational difficulties like defective loaning policies, lack of adequate supervision and technical support to the programme by the Ground-Water Cell in the State

public exchequer on account of imports which have now become very costly in view of their scarcity value in the internal market. They, therefore, emphasise the imperative need for reducing the period for the commissioning of the plants to the minimum and to maximise indigenous production of fertilizers so as to achieve self-sufficiency in the matter of fertilizers at an early date. They also recommend that all factors coming in the way of fuller utilisation of the existing installed capacity should be attended to on an urgent basis. At the same time, a time bound crash programme should be formulated for the creation of additional production capacity in the country to meet the demand.

Reply of Government

The down-ward revision of fertilizer production targets in the Draft Fifth Plan is due basically to the rephasing of some of the projects which were expected to contribute the production during different years of the Fifth Plan Period; such rephasing became necessary mainly in view of the resources constraint and also in view of slippages in project implementation. The projects at Korba and Mathura and Paradeep, which are included in the Fifth Five Year Plan Fertilizer Programme, have not been so far taken up for implementation on account of the resources constraint.

Government share the concern of the Estimates Committee over slippages in the completion and commissioning of fertilizer projects. The major factors responsible for delays in the completion of projects are as under:—

(a) Delay in supply of equipment both indigenous and imported. These delays on the part of suppliers have been often due to unforeseen factors like labour unrest in the fabricators' works, power cut, difficulty in obtaining material for fabrication etc.;

(b) Delay on the part of construction contractors;

(c) failure of critical items of equipment including imported equipment;

(d) difficulties in fabrication of some sophisticated equipment being indigenised for the first time;

(e) delays due to adoption of new technology on a large scale;

(f) labour unrest;

(g) availability of construction and structural items like steel, cement etc.

Despite the difficulties listed above, it has been the constant endeavour of Government to monitor the implementation of fertilizer projects and expedite their completion and commissioning. The monitoring of projects under implementation has been and is a continuing process. The Ministry is receiving monthly|quarterly progress reports which are analysed in the Project Cell with a view to identifying the factors leading to delay and taking corrective measures. In addition, performance review meetings are also held periodically to critically review the progress of the various projects under implementation. These meetings are attended. in addition to the project authorities, by representatives of the Ministry of Finance, BPE, Planning Commission and other concerned Ministries. In addition to monitoring described above, procedures for the clearance of list of equipment for import, release of foreign exchange etc. have also been streamlined. With these measures, it is hoped that there would be fewer difficulties in project implementation. However, despite all possible efforts, unavoidable and unforeseen delays in project implementation cannot be ruled out. Nevertheless, as stated above, it will be the constant endeavour of Government to commission fertilizer plants within the given time schedule so that there is no escalation in cost and fertilizer capacity is augmented in the shortest possible time.

It is also the endeavour of Government o maximise he utilisation of installed capacity so as to augment indigenous production. It is with this object in view that Government is closely monitoring fertilizer production on a weekly basis so as to take whatever steps are necessary to reduce plant outage and maximise production. The capacity utilisation of fertilizer plants should be viewed with reference to the spread of investment over a period of time. The performance of fertilizer plants would broadly fall into three distinct categories:

1. Extremely old plants with ageing equipment and feedstock and technological constraint. This category would include plants such as those at Sindri, Udyogmandal, Rourkela, Neyveli, Varanasi and Ennore.
2. Plants which are modern and stabilised such as the ones at Nangal, Gorakhpur, Trombay, Namrup, MFL, Baroda, Goa and Kota.
3. New plants which have recently been commissioned and are yet to stabilise production.

The capacity utilisation of the various fertilizer plants as divided in the above three categories over the last five years is brought out in the statement at Annexure I (not printed). I would be seen from

the statement that the average utilisation of capacity in each of the categories has been as under:—

Category I	45 to 48 per cent
Category II	71 to 82 per cent
Category III	17 to 20 per cent

In Annexure II (not printed) a comparative statement of capacity utilisation in respect of nitrogen production in different countries has been provided. It would be seen from the statement that the capacity utilisation in India in Category II compares very favourably to World Standards. Even the cumulative average of capacity utilisation of all three categories in India for the years 1970, 1971 and 1972 is higher than the World average.

Nevertheless, it is the intention of the Government to take such renovation/debottlenecking/modernisation measures as are necessary to bring up the capacity utilisation in Category I and also to improve the performance of the plants in category II. In fact, several measures in this direction have already been implemented or are under implementation. Measures being taken to augment fertilizer production plant-wise are shown in Annexure III. (Not Printed). In addition, Government have negotiated a loan for 17 million U.S. dollars with the IDA to take measures for plant operations improvement. Various schemes for improving the performance of plants both in the private and in the public sectors are being taken up under this Plant Operation Improvement Programme. Government is also negotiating a further loan with the World Bank in the nature of a sectoral loan to finance debottlenecking and renovation programmes in the fertilizer industry. It is hoped that with these measures, the performance of operating units would improve substantially and stabilise as close to rated capacity as is possible.

Government is equally anxious that additional fertilizer capacity should be set up in the country on a crash basis so that the import of fertilizers to meet the country's demand is progressively reduced and the country becomes as near self-sufficient in fertilizers as possible at an early date. In any appraisal of the growth of the fertilizer industry, it would have to be appreciated that the industry is highly capital intensive with a long gestation period. A plant of the standard size i.e. with a capacity of 900 tonnes based on naphtha would cost anything around Rs. 150 crores; the out-lay on a plant based on fuel oil or coal would be even more. In this

situation, the building up of additional capacity would necessarily be to a large extent influenced by the resources position.

The Draft Fifth Plan Document envisaged a capacity of about 6 million tonnes nitrogen by 1978-79 and a production target of four million tonnes. Due, however, to the resource constraint, it has become necessary to rephase some of the projects; as a result is now expected that the capacity build-up by 1978-79 would be of the order of 5 million tonnes and the production achievable would be about 3 million tonnes of nitrogen. Since, however, the requirement of fertilizer by 1978-79 has been currently assessed at 5.2 million tonnes of nitrogen and 1.8 million tonnes of P_2O_5, there would still be a gap between the demand and indigenous availability of fertilizers which would have to be filled by imports to the extent possible.

[Miny. of Agriculture & Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 40, Para 3.24)

The Committee are greatly conerned to note that the total availability of fertilisers by domestic production as well as import during 1974-75 will fill short of the demand by nearly 1.3 million tonnes and that during 1975-76 the gap between the demand and the estimated production is likely to be of the order of 2.5 million tonnes which will have to be filled by imports if the agricultural production programmes laid out for that year are to be implemented. The Committee are informed that Government are making efforts to reduce this gap to the minimum by contracting maximum possible quantities of fertilisers from imports. Meanwhile, a campaign has also been undertaken for prudent use of available fertilisers and for production and utilisation of rural as well as urban compost. The Committee stress that timely action should be taken to see that the fertilisers in requisite quantities are made available to the growers. They would at the same time, recommend that in view of the general scarcity and high cost of fertilisers, Government should launch a massive programme though *mass media* in local languages to educate the farmers in the correct doses and time of application of fertilisers for the main food crops so as to derive maximum benefits out of the available quantities of fertilisers.

Reply of Government

The Government has continuously emphasised the need of higher production for the domestic manufacturers and also tried

to procure as much fertiliser as possible in the international market. As a result of the persistent efforts of the Government of India, the availability of fertilisers during the current year has reached the level of projected requirement. The Government has also taken a campaign to educate the farmers in the efficient use of fertilisers. Guidelines were circulated from time to time to the State Governments in this respect and different programmes were suggested. Emphasis was placed on issuing leaflets in local languages giving the packages of practices and also mobilising all the available audio visual methods educating the farmers in the proper use of fertilisers. The State Governments were requested to organise training campaigns in a systematic manner for farmers as well as the agricultural officers/extension officers and Gram Sewakas. The Government of India also circulated guidelines about the specific doses and the types of fertilisers to be used for different crops. [A copy each of the letters issued on the 26th September, 1973, and the 14th May, 1974 is enclosed herewith (not printed)].

Pari pasu with the programme of educating the farmers in the use of chemical fertilisers, a massive programme was also undertaken for a similar education in the use of compost and in techniques of composting. For the year 1975-76 the Government have fixed a target of 238 million tonnes of rural compost production and 6 million tonnes of urban compost production. The State Governments have been asked to train the farmers in the proper art of composting and the farmers associations also have been requested to take demonstrations and training camps. A massive propaganda has been launched through the printing of appropriate slogans on the use of composts in post cards. All India Radio and Television have also been geared to educate the farmers in this respect. The Advertising and Visual Publicity Division have undertaken to arrange visual publicity through posters and leaflets.

In order to supply fertilisers in proper time the requirements of State Governments for a particular consumption season are assessed well in advance in the bi-annual Zonal Conferences held in January and July of a year. In January each year, the requirements of fertilisers of State for Kharif season are assessed and a coordinated supply plan is chalked out. The actual supply commences right from February of the year though the application season starts only in June. Similarly, for Rabi the assessment is done in July itself as the supply commences from August. Thus the supply of fertilisers is done well in advance of the application time. The supply plan chalked up by the Ministry also avoids

criss-cross movement or long haulage and thereby tries to minimise movement constraints. Even the import programme is geared to this end. The import plan of fertilisers is prepared a year and a half in advance.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-76]

Recommendation (Serial No. 52, Para 3.68)

The Committee welcome the new informal arrangement with the indigenous manufacturers whereby 50 per cent of certain popularly used indigenously manufactured or imported pesticides chemicals are to be routed through the State Governments to the small scale units other than the associated units of the established companies. The Committee hope that the new system would secure to the State Governments control over the manufacture and distribution of 50 per cent of the pesticides available in the country and will lead to their timely availability at reasonable prices. In case, however, this informal arrangement with the pesticides manufacturers is found unworkable, Government should not hesitate to take recourse to statutory measures to regulate production and distribution of popular pesticides/insecticides.

Reply of Government Department of Agriculture

The informal arrangement under which 50 per cent of indigenously produced or imported pesticides/chemicals are routed through State Governments, was introduced only in 1974. It is too early to make a final judgment about the success or failure of the scheme. However the unanimous opinion of the State Governments expressed in the last annual Plan Protection Conference was that the scheme had helped in the availability position generally had helped the States to keep a buffer stock at reasonable prices and had a salutory effect in stabilising prices in the market.

Should the arrangement ultimately fail, Government would consider recourse to statutory measures.

Reply of Government (Ministry of Chemicals & Fertilizers)

The observation of the Committee in the opening sentence of this para in regard to the informal arrangements entered into with the pesticides manufacturers for the distribution of certain selected pesticides (Technical) is noted. The working of the arrangement will be constantly reviewed and appropriate action as necessary

would be taken to ensure adequate availability as well as fair and equitable distribution of the required pesticides at reasonable prices.

[Ministry of Agriculture and Irrigation, (Deptt. of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-76].

Recommendation (Serial No. 54, Para 4.20)

The Committee note that the import of tractors on commercial account is banned since 1972-73 for the reason that indigenous capacity has picked up sufficiently to meet the demand. They, however, observe that while the annual availability of tractors during the first three years of the Fourth Plan varied between 31 and 38 thousand, the availability was less than 26 thousand during the last two years of the Plan period when the import ban was in operation. Further the assessed demand of tractors for 1974-75 is about 46 thousand but the latest estimates place the indigenous production during the year at no more than 32 thousand. The net effect of the current ban in import of tractors has, therefore, been to reduce the overall availability of tractors in the face rising demand. The rise in prices of tractors could have been also due to their short availability in the country. The Committee recommend that Government should make a critical analysis of the reasons for not achieving the envisaged production even when the capacity licensed was for the manufacture of 1.47 lakh tractors per annum and take suitable remedial steps to fully meet the requirement of tractors.

Reply of Government

The production of tractors during 1974-75 was estimated at 40,000 nos. But due to unforeseeable circumstances like severe powercut imposed on industries in most States, shortage of imported raw materials, components, tyre tubes, etc., it was not possible to reach the above production target. The production of tractors in the country during 1974-75 was 31088 which is the highest figure of production achieved so far. This is approximately 27 per cent more than the production achieved during the year 1973-74 and can be considered a substantial achievement.

2. The production of tractors during 1975-76 has been envisaged at 40,000 nos. and is expected to reach 75 to 80,000 nos. by 1978-79, which according to the estimate of requirements projected by the National Council of Applied and Economic Research, will meet the demand of the country not only in terms of aggregate but in terms of a different horse power range.

3. A particular method for expansion of tractor production which is being followed is to tie-up the further plans of production of tractors to the makes which are already in production. In pursuance of this, one tractor project has already been linked with the public sector tractor project and another is also likely to materialise. This method of horizontalising the base of tractor production without further output of pay loads in terms of technological inputs has been considered in conformity with the Government policy of containing the technological inflow to the current levels while disseminating the available technology as widely as possible.

4. At present 15 units are licensed for a total capacity of 1,29,000 nos. per annum. Besides two units have been granted letter of intent for a capacity of 20,000 nos. per annum. Thus the total licensed/approved capacity is of the order of 1,49,000 nos. The reason for the gap between the capacity and the present level of production is because certain units have not yet installed their full licensed capacity and 4 have not gone into production yet. This gap will be reduced steadily with the commissioning of new projects. Nonetheless the present level of production is adequate to meet the existing demand effectively.

5. The tractor industry as it has developed till now and is expected to develop, will meet the needs of the country upto 1978-79 and also keep pace with the anticipated demand. Periodical reviews of the requirements of the industry, in terms of marginal and critical technological inputs and also in terms of other input assistance are undertaken as a matter of course by this Department, as it is a critical part of the programme of mechanisation of agriculture, which is important to the economy.

6. The tractor industry has been able to achieve significant degree of development in production and also technological expertise. In terms of installed capacity, skills, ancillary backup the industry is geared for an annual rate of production of 80,000 by 1978-79. The horse-power range-wise break-up is as follows:

	Nos.
Upto 25 HP .	20,000
26 HP to 40 HP .	40,000
41 HP and above. . .	20,000
TOTAL	80,000

[Ministry of Agriculture and Irrigation, (Deptt. of Agriculture) O.M. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 57, Para 4.23)

The Committee note that although the distribution of tractors is being controlled by the Government, there is a wide variation in the tractor population as between different States. They also note that Government themselves have maintained wide divergense in allotment as between different States. The Committee consider that since tractor is a vital input related to agricultural production programme, Government should evolve and observe definite criteria for allotment of tractors so as to make for an equitable distribution as between different States and avoid any criticism of partiality in allocation of tractors, both indigenous as well as imported.

Reply of Government

According to the provision of the Tractor (Distribution & Sale) Control Order 1971, every person desirous of purchasing a tractor has to apply to the dealer of the area in which he is resident, by pledging a Post Office Savings Bank Pass Book from the post office, evidencing the fact that he has opened a Security Deposit Account for a sum not less than Rs. 1,000/-. The Tractors are allotted to the persons according to their turn in the waiting list maintained in the chronological order of the bookings with the dealers. No separate quota has been allotted to the State Governments for distribution of tractors. According to the instruction under the Tractors (D & S) Control Order, the tractor manufacturers have to distribute tractors amongst the dealers serving their respective territories in the proportion of the orders registered in their books as on 30th June and 31st December, of each year. The disparity in the population of tractors in the different States is due to unequal demand for tractors. The tractor manufacturers have been instructed to ensure that the waiting period for their tractors in various States should as far as possible be uniform.

2. Government are not making any regular allotment of tractors to State Governments for distribution to farmers. However a separate quota of tractors has been placed at the disposal of the Central Government to meet the demands of Central/State Government Departments/Undertakings and Educational Institutions etc. Besides Government make ad-hoc allotment of tractors to the State Governments for meeting their urgent demands. Tractors are also allotted to State Government for distribution to Engineer Entrepreneurs for setting up Agro-Service Centres.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget, dated the 30-1-76].

Recommendation (Serial No. 60, Para 4.26)

The Committee note that at present training facilities in the operation and maintenance of agricultural machines are available only for less than a thousand persons per year in the two existing centres as Budni and Hissar and since the inception of these centres up to the end of 1973, the number of persons trained has been only 6,000. The Committee consider that the training facilities are not commensurate with the growing needs of farm mechanisation in the country. The Committee recommend that adequate attention should be paid to the need for organising short-term training courses in operation and maintenance of tractors and other agricultural machinery at centres which may be dispersed all over the country.

Reply of Government

The tractor training centres are functioning at Budni and Hissar to conduct the following courses of training:—

Course 'A'	3 months duration in the operation and maintenance of agricultural machinery for farmers and operatons 3 Nos. of 70 trainees in each course.
Course 'B'	3 weeks duration special operational course for power tillers, pump sets, cawler tractors or combines. 2 Courses of 30 trainees in each.
Course 'C'	6 weeks duration in the repair and overhauling of tractors for mechanics and supervisory staff. 5 courses of 30 trainees in each.
Course 'D'	One month duration for agricultural engineering undergraudates in operation, field training and testing of tractors and other agricultural machinery 1 course of 60 trainees.
Course 'E'	3 months duration for Agro Service entrepreneurs for setting up their private tractor hiring service stations. 4 courses of 30 trainees in each.

Agricultural mechanics are trained in various Industrial Training Institutes in different States also. Farm mechanics are also trained at Extension Education Institute. Nilokheri (Haryana) and in about 37 agricultural implements workshops attached to the Gramsevak Training Centres and Rural Extension Training Centres in various States. These workshops have so far trained about 7,500 artisans in the repair and maintenance of agricultural implements.

Keeping in view the new developments in the field of agricultural implements the existing training facilities in the country are being

strengthened through our establishment of the third Tractor Training Centre at Mysore.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 66, Paras 5.34 & 5.35)

Our country is endowed with considerable geo-physical diversity, large tapped and un-tapped water resources, abundant sunlight, large animal and human population and plenty of human talent. Yet, our agricultural productivity is low as compared to not only western countries but also some of the far and near eastern countries like Japan and Egypt. A continuous pressure on land due to phenominal growth in population, aberrant weather and improper use and management of resources are to a large extent responsible for it. Our urgent need is therefore to develop and implement an agricultural production technology which will lead to increased productivity and thereby enable us to produce more and more food from less and less land under conditions of resource constraints. In this task, agricultural research has a primary role to play. In view of the urgency to augment the production of foodgrains to feed the ever-growing population and become self reliant in this vital matter, it is necessary that agricultural research institutions and universities should lay more stress on result oriented and applied research which can be of use to the farmer in increasing production. With that end in view the Committee would like to make the following recommendations.

The Committee note that out of a total plan expenditure of about Rs. 74 crores on agricultural research in the Central Sector during the Fourth Plan period, only about Rs. 12 crores were spent for research institutes and Coordinated Research Projects, having a direct or indirect bearing on crop research leading to enhanced foodgrain production. In the Fifth Plan also, out of the Central Sector allocation of Rs. 156 crores for agricultural research, the allocation for research on foodgrains crops is only Rs. 40 crores. The Committee feel that in view of the urgency of increasing production of goodgrains there is need for greater emphasis being placed on research for increasing productivity in food crops.

Reply of Government

Upto the Fourth Plan period, the entire expenditure on the All India Coordinated Research Projects was borne by the ICAR from

the Central funds. The funding policy has since been revised during the fiifth Plan according to which State Governments have also to share to the extent of 25 per cent of expenditure on the Coordinated Research Projects in the States. The Planning Commission has been ensuring adequate provision for this in the States' Annual Plan so that research activities on foodgrains should not suffer for want of adequate budget provision. Thus, it would be seen that the provision of Rs. 40 crores in the Central Sector for the research on foodgrains is in addition to the expenditure of 25 per cent to be borne by the State Government on Coordiated Research Projects. In addition to Central Sector outlay, the States also support research on selected items which are of regional nature and are not covered by the All India Coordinated Projects.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 71, Para 5.40)

There may be more than one geo-climatic regions in a State and the problems of one region may be entirely different from the other. On the other hand, agro-climatic region may extend to more than one State with common problems. In order that each distinctive region is fully covered and at the same time the utilisation of scarce resources is national and optimum and there is no duplication of effort, the Committee recommend that the fields of research and related operations of each Agril. University should be clearly demarcated on the basis of regions and/or crops on which it should be asked to concentrate and produce results.

Reply of Government

It is necessary that the different agro-climatic regions in the states are adequately served by the agricultural university in the States. Most of the states have one agricultural university. The university in addition to the main campus established research-cum-extension centres in each of the agro-climatic regions of the state. These university regional centres will concentrate on the problems of the specific region and in the training of trainers of the State Governments agencies in the transfer of technology to the farmers in the specific agro-climatic region of the State. Where there is more than one agricultural university in the State as in Maharashtra and U.P. the State Governments have assigned clear agro-climatic regions to each of the agricultural universities in the State.

To deal with the situations where geo-climaic regions may extend to more than one state with common problems ICAR has demarcated 8 broad regions in the country on geo-climatic basis. Regional Committees representing agricultural universities and research institutes responsible for the research in the overlapping areas of the states along with State Government and non-official members have been set up to review research needs of the region, assign responsibility to the concerned research agencies and review th programms and progress of work.

[Ministry of Agriculture and Irrigation (Department of Agriculture), O.M. No. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 72, Para 5.41)

The Committee feel that while organising agricultural research on geo-physical basis and keeping in view the specific needs of the various regions in comparatively bigger States, it may be necessary to set up more than one Agricultural Research Institute/University in a State, as has been done in the case of Maharashtra where there are at present four Universities and in U.P. where, besides the University at Pantnagar, it is proposed to set up two other Agril. Universities.

Reply of Government

In the fifth plan each Agriculture University in the State will be assisted in the setting up regional reseach-cum-training centres in the district Agro-Climatic regions of the State. With this development the necessity of more than one Agriculture University in a State may not arise.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 81, Para 5.50)

The Committee feel surprised that although the 'Bunchy Top' disease in the Banana plantation which began in a virulent form in the Nilgiri Hill areas, has spread to neighbouring areas of Kerala, Karnataka and Andhra Pradesh, no effective control measures have been taken as yet by any agency State Agriculture Department, Tamil Nadu Agril. University of the ICAR. The Committee understand that at this stage the only remedy for eradicating the disease is to destroy every diseased clump of banana and cut the oseudostem and apply kerosene over the cut-end to prevent further sprouting and that these operations over large areas may be costly.

The Committee recommend that the Indian Council of Agricultural Research should pay urgent attention to the problem and take suitable remedial measures to arrest and eradicate the disease from the Southern region. They would also like the ICAR to device an Early Warning System whereby the Council keeps itself regularly informed of the incidence of disease or attack of pests so as to enable it to take timely remedial measures when the problem is at the nebulous state.

Reply of Government

The Scientists working on the control of plant diseases in India are fully siezed of the problem of the bunchy top disease of banana. Unfortunately, the banana aphid which is the carrier of the disease causing entity is widespread on other hosts including weeds. Hence large scale rehabilitation of diseased gardens with healthy ones in any given area is scientifically not feasible. The only known appraoch is timely destruction of the diseased clumps and suckers by various means, to prevent the spread of the disease to healthy ones. However, the ICAR will organise a special discussion of experts to examine if any additional research support could hasten a solution to this important problem.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 83, Para 5.60)

In view of the fact that the heads of Agriculture Directorates in the States are responsible for giving technical guidance to the staff at district and block level and for detailed planning, programming and supervision in the field of agricultural development and also act as advisers to State Governments on technical matters relating to agricultural development in the State, the Committee would like Government to pursue with the State Governments, the question of appointing technically qualified and knowledgeable officers to the posts of Directors of Agriculture. To enable such officers to discharge an effective role in coordinating the procurement of various inputs for agriculture for which different departments of Government may be responsible and also in coordinating the multi-farious activities of his own organisation, it is also necessary that the Directors of Agriculture should be dynamic officers of proved administrative acumen. For this purpose, the various training facilities available in the country could be availed of.

Reply of Government

In almost all the States the Directors of Agriculture are already technically qualified officers. In the scheme for "Strengthening of extension machinery" in the States at District and Block levels proposed to be implemented, it has also been provided that a Director of Agriculture should be first grade Head of Department on par with other technical Heads of Departments. It is also provided that there should be a fulfledged Agricultural Production Commissioner with the status of a super-Secretary as recommended by Dr. Ram Subhag Singh's Committee in each State. The states where this recommendation has not been accepted would be requested to take necessary steps to appoint Agricultural Production Commissioners. In order to achieve better coordination it is further laid down that there should be a Coordination Committee chaired by the Agricultural Production Commissioner with all Heads of Departments concerned with Agricultural Produciton as members and the Director of Agriculture as convenor.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 87, Para 5.73)

The Committee are surprised that against the total expenditure of Rs. 39 lakhs on the Directorate of Extension in 1973-74 as much as Rs. 22 lakhs was spent on the Administrative Unit alone. The combined expenditure on the Training Unit, Farm Information Unit and Live stock Unit, which are the operational wings of the Directorate was only 17 lakhs. The Committee recommend that Government should have the organisation, functions and performance of the Central Directorate of Extension evaluated by a Committee of Experts which may inter-alia include a Vice-Chancellor of an Agricultural University and a representative of the Ministry of Finance. This Committee may also be required to make suggestions for improvement to make the organisation an effective instrument for coordination of agricultural extension work in the whole country. The suggestions and recommendations of the Committee should be implemented by the Government expeditiously. Meanwhile, the Committee would like the Directorate of Extension to reduce their administrative expenditure to the minimum and increase the outlay on the operational wings which should have specialised personnel and facilities in required fields.

Reply of Government

It is clarified that when the Directorate of Extension was initially set up, the entire expenditure on technical and non-technical posts as well as the supporting staff required for these Units was debited to the general Non-Plan budget of the Directorate. As such the entire expenditure on this account including the staff required to cater to the administrative requirements of the Directorate has continued to be shown under administrative unit. From time to time additional posts have been created specifically for new schemes taken up by the Farm Information and Training Units. The expenditure in this respect is debited to the respective schemes of the two units. The statement furnished by us earlier was prepared accordingly. In fact, the expenditure shown under administrative unit includes expenditure on a vast number of posts, both technical and non-technical pertaining to Training and Information Units of the Directorate. In so far as the expenditure incurred during 1974-75 is concerned, it has been bifurcated accordingly to the actual number of posts and the incumbents working in the respective units and it comes as under:—

	Rs. in lakhs
Administrative Unit . . .	8·24
Training Unit . .	10·87
Farm information Unit . .	18·94
Livestock Unit.	2·19
	40·24

It will, thus, be observed that the administrative expenditure is reasonable when compared to the overall expenditure of the operational wings.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 91, Para 5.90)

The Committee note that the Centrally sponsored scheme for Farmers' Training and Functional Literacy implemented during the Fourth Plan gradually covering 100 districts at the cost of about Rs. 4 crores, has been found, after evaluation, to have been effective contributing factor in the popularisation and adoption of improved

agricultural practices. It is proposed to continue the scheme during the Fifth Plan period and cover additional 50 districts and a sum of Rs. 9 crores has been provided in the Fifth Plan for this scheme. The committee would suggest that as far as possible the scheme should be implemented through the existing training centres in the States and constant watch should be kept on the implementation of the scheme so as to ensure that the benefits of the scheme actually reach the farmer in the field, especially the marginal and small farmers.

There should also be a regular system of contemporaneous evaluation of the scheme so as to effect improvements.

Reply of Government

Keeping in view the inherent benefits of the programme, spontaneous response of the farmers and the appraisal of the Evaluation studies, it is felt that this programme has not only to be continued but must also be considerably strengthened and expanded to meet the needs of the small and marginal farmers and to have a better impact in general on the agricultural production in the country.

The National Commission on Agriculture have very emphatically recommended "that the Farmers Training Centres should be set up at the rate of one atleast in each district where long duration as well as short duration courses should be organised to provide training facilities in various subjects to farmers sons and daughters and also to adult farmers both men and women".

The sub-working Committee set up for the formulation of the Fifth Plan proposals after very critically reviewing the Farmers Training Programme in the entire country have recommended the continuance and strengthening of this programme.

Owing to the usefulness of this programme there has been persistent request from the States and Union Territories for the establishment of additional Farmers Training Centres in the remaining districts of their State.

So far the programme has been continued in the areas covered by the High Yielding Varieties Programme. Since the programme has made a very significant contribution in the popularisation and adoption of improved agricultural practices leading to high agricultural production, this programme has a very important key role in modernising agriculture. It is, therefore, imperative to extend this programme to the special areas covered by the special programmes to

benefit the small and marginal farmers as well as the farmers in the dry farming areas so as to ensure inter project coordination at the district level. As regards the programme content is concerned it covers all important crops and farm enterprises, important in the respective areas including horticulture, cash crops, as well as development of live-stock, dairy, poultry and fishery.

However, it may not be possible to extend the Farmers Training Programme to cover all the districts in the country as recommended by the National Agriculture Commission due to the constraints imposed by the fiscal resources. But the extended coverage in the Fifth Plan would cater to additional 50 districts in the country to bring the training programme closer to the on-going priority programmes like SFDA, MFAL and DPAP etc. and to districts where commercial and cash crops with expert potential are being grown.

As far as the evaluation programme is concerned, this programme has been evaluated very vigorously by foreign experts as well as our own Evaluation Cell from time to time to determine the actual impact made by the programme. All the evaluations made have invariably found very encouraging results. The Directorate of Extension which is implementing the Farmers Training Programme has its own evaluation cell which periodically evaluates the impact of the programme in the field.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. 2-3/75-Budget, dt. 30-1-1976].

Recommendation (Serial No. 96, Para 6.17)

The Committee are constrained to observe that as against the total Fourth Plan outlay of Rs. 20 crores for the Centrally Sponsored Scheme of Integrated Dryland Agricultural Development, it was possible to spend on the scheme only Rs. 6 crores or 30 per cent of the amount available. The reason for the sizeable shortfall in achieving the financial target in respect of the scheme is stated to be late implementation of the scheme in some districts, leading to non-utilization of funds. The Committee feel disappointed that a well intentioned scheme such as this could not progress despite the availability of funds on account of delayed implementation which reflects adversely on the system of programme planning and implementation observed in the Ministry of Agriculture and Irrigation. The Committee would like to impress upon the Government the need for ad-

vance programme planning of schemes and projects so that as soon as funds are available these could be implemented in the field straightway.

Reply of Government

The Scheme was started from the second year of the Fourth Five Year Plan (i.e. from 1970-71) and only nine projects were taken up during that year. The remaining fifteen projects were sanctioned in 1971-72. All the 24 projects actually started working from the year 1972-73.

Issue of administrative approvals for the continuance of the projects under the scheme every year, was a major constraint in its smooth implementation. The sanction was first issued by the Government of India on the basis of the continuance proposals received from the concerned State Governments and then the State Governments used to take some time to issue their sanctions on the basis of administrative approvals. It was only after the State's sanction that the programmes were actually implemented. Apart from this, several other difficulties such as arrangement of loans through institutional sources, timely supply of inputs, difficulty in execution of permanent works because of the low 'hasiat' of the farmers, limited area of operation, 10 acre restriction of minor irrigation programmes, non-availability of transport, subsidy on farm machinery, late appointment of the project staff, etc. were coming in the way of proper execution of the various programmes. The above difficulties have, however, since been removed. During the Fifth Plan the scheme has been sanctioned for the entire 5th Plan period so as to avoid administrative delays and the State Governments have been advised to issue likewise sanctions for the various projects for the plan period.

With the adoption of the various corrective measures, the scheme has started gaining momentum. From the experiences gained in the implementation of the scheme during the 4th Plan, some changes have been made in the pattern of assistance for the 5th Plan. For each of the programmes under the scheme, guidelines have been prepared and sent to the concerned Governments and the Project Officers to keep these into view while preparing their programmes for each year.

Thus it may be stated that against a provision of Rs. 12.0 crore for the execution of 24 projects only about Rs. 5.5 crore could be spent because the 24 projects could be implemented fully only for two

years. Out of remaining Rs. 8 crore, Rs. 1.20 crore were decided to be spent on folier spray of urea on unirrigated wheat/jowar but actually the State Governments could not cover the targetted area and the expenditure was about 0.6 crore. It took sometime to identify and remove the various bottlenecks coming in the way of proper functioning of the scheme. During the Fifth Plan period the scheme has been somewhat revised based on past experience and detailed guidelines have been issued to State Governments to draw up their action programme. In order to avoid administrative delays the Government of India's approval has been issued for the plan period. It is hoped that the State Governments would draw up various programmes, execute these in time and utilise the funds made available.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 98, Para 7.17)

Government have admitted that there has been a considerable escalation in the cost of agricultural inputs, namely, in irrigation and power rates, in the cost of fertilisers and pesticides and in the interest rates for agricultural credit. This has affected the overall cost of production of foodgrains. With regard to the point that the support prices announced by the Government are low, it is stated that these prices are inconsequential and the real prices are the procurement prices. The low procurement prices of foodgrains are, on the other hand, sought to be justified on the ground that the farmer is obliged to sell at best only 10 per cent of his produce at the price fixed by the Government and the higher price at which he can dispose off the remaining 90 per cent of his produce would more than compensate him for the higher prices of inputs that he has to pay. The Committee consider these arguments as untenable. They feel that the very objective of announcing the support price, namely, to remove "disincentive effect of uncertainty" and "create a stable price climate for investment and production", would be lost if the price is not realistic and does not assure to the farmer a fair return over his labour and investment. They also feel that the holding capacity of the average farmer being very meagre, the procurement prices announced by the Government set a trend and the open market price of foodgrains available to the farmer tends to keep close to it. The Committee cannot overemphasise the importance of a price support policy which should enable the farmer to get remunerative price for his crops as it is crucial for maximising food production and attaining self sufficiency in this critical field. The Committee, therefore, re-

commend that while finalising the support and procurement prices of foodgrains, Government should give due consideration to the increased cost of production of foodgrains and the need for affording incentive to the farmer for increasing production particularly, of foodgrains. A realistic pricing policy would also lead to increased procurement for sustaining the public distribution system and building up a buffer stock of foodgrains.

Reply of Government

It has been an important objective of the price policy followed in recent years to ensure incentive prices to the producers. The instruments usually employed for this purpose are fixation of minimum support prices and procurement prices and procurement operations.

Minimum support prices are in the nature of a long-term guarantee intended to enable the producers to pursue their production efforts with the assurance that in the event of a glut in the market, the market prices of their produce will not be allowed to fall below the minimum economic levels. These prices are generally to be announced before the start of the sowing season.

Procurement prices which are higher than minimum support prices are meant essentially for the purchase of quantities needed by the Government for maintaining the public distribution system and for building up of buffer stocks. Since 1968-69, the Government has been purchasing all the quantities offered for sale at procurement prices so as to provide greater incentive to the producers for increasing production. This policy has aided the adoption of new technology and wheat production has almost doubled and its procurement has also shown a notable increase.

The minimum support/procurement prices are fixed on the advice of the Agricultural Prices Commission which take into account all the available data on the cost of production of different crops and other relevant factors in making their recommendations. In view of the increase in cultivation costs and in order to provide continued incentive to the producers, these prices have been raised substantially in recent years. The minimum support prices for paddy and coarse kharif cereals which were Rs. 42—44 in 1967-68 were raised to Rs. 62—65 per quintal in 1973-74. Similarly, the minimum support prices for wheat (common variety) were raised from Rs. 53.50 in 1967-68 to Rs. 85 per quintal in 1974-75. The procurement prices of paddy were raised from Rs. 45.00—56.25 in 1967-68 to Rs. 74.00 per

quintal in 1974-75. In addition to the Bonus Scheme related to the contributions to the General Pool, an additional incentive in the form of producers' bonus to the States which procured the major part of Marketable Surplus has been provided. The bonus thus earned is to be utilised for subsidising phosphatic fertilizers. During the same period, procurement prices for coarse kharif cereals were raised from Rs. 43—56 to Rs. 74.00 per quintal.

As regards wheat, the procurement price was raised from Rs. 55.00 in 1967-68 to Rs. 76.00 in 1968-69 and further to Rs. 105.00 per quintal in 1974-75, taking into account the rise in the cost of production and the rise in the prices of consumer goods purchased by the cultivators. In this connection, it may be mentioned that the Agricultural Prices Commission had recommended a price of Rs. 95.00 per quintal for 1974-75 season, but the Government decided to fix a higher price to provide greater incentive to cultivators for selling their marketable surplus of wheat to Government procurement agencies. For the current marketing season, (*i.e.* 1975-76) the procurement price has been retained at the last year's level. There was no doubt some rise in the cost of inputs over the previous year, but the procurement price for wheat at Rs. 105 per quintal still allowed an adequate margin over and above the estimated cost. In addition to this, the Government introduced a suitable bonus scheme to maximise procurement. The amounts payable to the State Governments under the bonus scheme were to be utilised for development programmes for the benefit of producers or to subsidise the supply of inputs to them.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 101, Para 7.20)

The Committee further recommend that Government should have a system of regular evaluation of the procurement prices announced by Government for each crop and season with reference to achievement of procurement programme and the gap between the procurement prices and the open market prices. This would help the Government in assessing the impact of their pricing policy and adopting a more realistic approach in framing the price policy for the next season.

Reply of Government

The Agricultural Prices Commission which submits annually its reports on prices policy for kharif and rabi foodgrains, takes into

account the relevant factors in recommending the level of procurement prices and target of procurement. These factors include the prospects for the crop, the likely behaviour of market prices, performance of procurement in the past and the volume of procurement required for purposes of public distribution and adding to the buffer. The level of procurement prices to be fixed and procurement targets are also discussed with Chief Ministers of the States.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 103, Para 7.35)

The Committee note that as against the proposed expenditure of Rs. 3.61 crores for the Centrally Sponsored Scheme for the development of pulses during 1972-73 and 1973-74, the actual amount released to the States under the scheme during these years totalled only Rs. 1.29 crores. The Committee would like Government to go into the reasons for which the scheme could not be implemented during the last two years of the Fourth Plan according to the programme and streamline the procedure observed by the Ministry of Agriculture and Irrigation in the planning and execution of the Centrally Sponsored Scheme so as to ensure achievements of Planned Financial and Physical targets.

Reply of Government

The main reason for poor expenditure during the two years of the Fourth Plan i.e. 1972-73 and 1973-74 is the late issue of sanctions of the scheme by various concerned States. Fifteen States agreed to initiate pulses development programme from 1972-73. The scheme was thus formulated and the allocation of physical and financial targets were intimated by Government of India to the concerned States. During 1972-73 only 11 States were able to initiate the programme. The other States could not take up the programme at all due to late issue of sanctions.

The Directorate of Pulses Development, Government of India, Lucknow plans and formulates the scheme in consultation with the different State Governments. The implementation part is entirely with the State Government. However, efforts are constantly being made to see that the State Governments take necessary steps to take up the work of the scheme promptly.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 106, Para 7.38)

Governments have advanced various reasons for the shortfall in production of pulses during 1972-73 and 1973-74, *e.g.*, unprecedented drought, late sowing and high incidence of wilt disease in North India during 1972-73, frost during January-February 1974, shortage of improved seeds and lack of enthusiasm among farmers for adoption of plant protection measures. The Committee would like to point out that the main purpose of the Centrally Sponsored Scheme is specifically to get over the vagaries of nature as far as possible and augment production by introducing a package of practices. Government should have taken steps to ensure adequate and timely availability of improved seeds of pulses and plant protection measures to save the crop from widespread disease. The Committee hope that the Ministry of Agriculture and Irrigation will study the causes for the low production of pulses during 1972-73 and 1973-74 despite the implementation of the Centrally Sponsored Scheme for development of the pulses so as to improve the performance of the scheme and achieve the targets during the Fifth Plan period.

Reply of Government

Pulses production in the country has remained almost stagnant around 11 million tonnes. The actual production in any year has, however, been fluctuating as a function of environmental condition. While during 1972-73 severe drought, failure of winter rains and incidence of wilt disease in gram resulted into shortfalls in area and production of pulses, but 1973-74 which was otherwise a normal year, we had to face severe incidence of frost during February 1974 thus killing crops of arhar and gram, the two major pulse crops of Northern India. Researches are in progress but it may take some time to evolve varieties resistant to drought, frost. These phenomenons of drought and frost are beyond human control.

The high-yielding varieties have not been evolved so far. The pulse crops are unable to compete with high yielding varieties of wheat, rice and other remunerative crops like sugarcane and are pushed out relatively to less favourable areas by which not only production declines but the fluctuation in production from year to year may probably be more pronounced. However, efforts are being made to increase area under pulses by cultivation of short duration varieties of pulses as catch crops, inter-crops and mixed crop in multiple cropping programme and adopt package of practices in cultivation of these crops.

The seed of improved varieties of pulses are multiplied by the State Governments/Agricultural Universities/National Seed producing organisations (National Seeds Corporation, Tarai Development Corporation and State Farms Corporation). The provision to subsidise the multiplication/procurement of improved seeds of pulses is made under the Centrally Sponsored Scheme. The responsibility of multiplication of seed will also be taken care of by the recently developed seed corporations of the respective States. The package of practices including plant protection are being popularised by laying out demonstrations under this scheme.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

CHAPTER IV

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

Recommendation (Serial No. 7, Para 1.41)

The Committee are greatly concerned to note that the foodgrain demand and production target of 129 million tonnes for 1973-74, the last year of the Fourth Five Year Plan was scaled down to 115 million tonnes. According to Government the production targets had to be scaled down on account of shortage of fertilisers, problems encountered in the extension of area under high yielding varieties of rice, jowar and bajra and lack of progress in the evolution and introduction of short duration high yielding varieties of pulses. In this context, the representative of the Ministry, during evidence mentioned as a mitigating factor the fact of non-materialisation of the projected growth in the per capita income on which the demand and production targets for foodgrain were supposed to be based. The Committee do not consider the reasons for scaling down the production targets satisfactory as the problems faced in stepping up production of foodgrains are well known and should have been taken care of in advance. They further feel that the assessment of demand for foodgrains on the basis of the projected growth of per capita income and then to determine the production target on the basis of the demand thus arrived at, is not at all realistic. Food is the basic need of man and foodgrains not only provide his staple diet but also are the cheapest source of nourishment. A growth in the per capita income may enable him to improve his diet but it would hardly affect his need for a minimum meal of bread or rice. The Committee have, in paragraph 2.6 of their Sixty-First Report (Fifth Lok Sabha) on "Civil Supplies Organisation" and again in para 3 of Chapter I of their Seventy-First Report (Fifth Lok Sabha) on Action Taken thereon already stressed that the assessment of demand for foodgrains in the country on the basis of minimum consumption requirement is necessary for need-based planning of production and imports. The Committee reiterate their earlier recommendations and suggest that Government should assess the demand on the basis of minimum consumption requirement and the projected growth of

population and fix the production targets on a realistic basis to meet this demand in full.

Reply of Government

Government agree with the view expressed by the Committee that for need-based planning of production, it is desirable to make an assessment of demand for foodgrains with reference to the minimum consumption requirements. It may be stated that the minimum consumption requirements considered from nutritional standards represent a mix of several food items of which foodgrains constitute the major items, the others being edible oils, fats, sugar, fruits, vegetables, tuber crops, livestock products, fish and fish products, milk and other dairy products. In India, because of the shortage and generally high prices of foodstuffs other than foodgrains and low per capita incomes, foodgrains constitute the major source of calories as well as protein for a majority of the people. It is, therefore, necessary to increase the intake of foodgrains by the people to a level even higher than that prescribed in a balanced nutritional diet until the availability or other foodstuffs can be substantially increased. It may be submitted that over successive plans Government have been trying to secure as high a rate of growth in foodgrains production as possible with the available resources, physical, technical and financial, in order to imrpove the food consumption standards of the people. While the Government would like to achieve a higher rate of growth, the constraints with regard to the availability of irrigation, fertilisers and other inputs have to be taken into account in setting the targets.

It may also be submitted that the methods of assessment of overall demand for foodgrains are reviewed from time to time.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Comments of the Committee

Please see paragraphs 1—3 of Chapter I.

Recommendation (Serial No. 69, Para 5.38)

The Committee have observed that in the case of the Agricultural University at Pantnagar, the University has achieved self-reliance by the sale of seeds and agricultural produce out of a large agricultural farm attached to it. The Committee suggest that the Central Government should work out a Scheme of attaching adequate farm

land to each agricultural University/Institute the income from which could supplement the finances of the Institute/University and to that extent reduce the burden on the exchange.

Reply of Government

Some of the Agricultural Universities like in Gujarat and Maharashtra have already been given sufficient sized farms. The U.P. Government is providing to the new University at Faizabad a farm of about 400 acres. The State Governments will be consulted on this aspect further.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Comments of the Committee

Please see paragraphs 4—6 of Chapter I.

Recommendation (Serial No. 70, Para 5.39)

The Committee feel that in the present context of shortage of food and agricultural raw materials in the country, it is necessary that the agricultural research should be more purposive and direction oriented. The Committee recommend that Indian Council of Agricultural Research should lay down clearly national priorities for agricultural research on the basis of country's needs and problem in the field of development of agriculture particularly foodgrains and the Agricultural Universities/Institutes should be directed to conform to the national priorities so laid down. There should be a system whereby the research projects and the educational curricula of the Agricultural Universities/ Institutes are closely scrutinized at the Central level so as to ensure that these subserve the national priorities and that there is no overlapping and duplication of effort.

Reply of Government

Periodic conference of Vice-Chancellors of Agricultural Universities or Directors of I.C.A.R. Institutes as also joint meeting of these two are being convened for focussing attention on National Programme of Agricultural Research and training. Scientific panels of Education set up by the I.C.A.R. are taking steps to make curricula more relevant to National needs. This year I.C.A.R in consultation

with the Agricultural Universities, I.C.A.R. Institutes, related organisations and Government Departments has drawn up a National Campaign for rodent control, Control of pernicious weeds, pest management and tree planting (for fruit, fodder and manure), for implementation by educational institutions, Government agencies or voluntary agencies suitably Coordinated from the centre and by the States.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3|75-Budget, dated 30-1-1976].

Comments of the Committee

Please see paragraphs 7—9 of Chapter I.

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH GOVERNMENT HAVE FURNISHED INTERIM REPLIES

Recommendation (Serial No. 55, Para 4.21)

The Committee recommend that Government may have a study made by an appropriate technical body as regards the types and size of tractors which would be best suited for the geo-physical conditions obtaining in the country and with reference to the operating costs and the need for trouble-free sustained service. On the basis of the result of this study an attempt should be made to standardise indigenous production so as to make for rational utilisation of available production capacity.

Reply of Government

The above recommendation of the Estimates Committee was discussed by the Scientific Panel of Agricultural Engineering of the ICAR. Tractor testing requires considerable facilities and standard conditions such as loading cars, high range dynamo-meters, etc. Such facilities at the moment are available only at the Training Centre at Budni. The agricultural universities do not have this facility. Considerable information on tractor testing is already available at the Tractor Testing Centre at Budni. Agro Industries are also distributing these machines and their report for each machine is available. The Department of Agriculture has been requested to from an expert committee in their Machinery Section to critically examine the available reports and make suitable recommendations.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Additional information received from Government

Based on the decision taken in the Meeting held in the Ministry of Industry and Civil Supplies, it was decided that tractors would be subjected to batch testing which would include a user survey on performance and durability of the tractors operating under different conditions.

The information that becomes available would facilitate evaluation on suitability of tractors under different soil and farming

conditions in India. It has since been decided to constitute an Advisory Committee on testing of tractors. The proposal in this regard is being formulated in the Ministry. While finalizing the proposals indicated above the observations of Estimate Committee shall be kept in view.

[Ministry of Agriculture and Irrigation (Deptt. of Agriculture) O.M. No. 2-3/75-Budget (Vol. III), dt. 10-2-1976].

Recommendation (Serial No. 56, Para 4.22)

In the earlier paragraph, the Committee have already emphasised the need for increasing the indigenous production of tractors to meet the demand in full which is bound to have a sobering effect on prices. The Committee recommend that a continuous watch should be kept on prices of tractors and they should not be allowed to rise unless, it is, absolutely justified after undertaking a proper cost analysis. The Central Government may also take up with the State Government at the highest level the question of bringing about a reduction and uniformity in the rate of sales tax on tractors so as to reduce their selling prices to the farmers.

Reply of Government

Till October, 1974 the prices of agricultural tractors were being fixed under the Tractors (Price Control) Order, 1967. Due to increase in the cost of raw materials, components, labour, over-head charges and increase in the statutory levies Government had to rescind the statutory Price Control Order with effect from 29th October, 1974. The system of Price Control has now been substituted by a method of self-discipline of prices through the fixation of pricing norms and surveillance over the performance. These norms are based on 90 per cent utilisation of capacity, 16 per cent return on capital or 9 per cent return on net worth. Under this system the prices fixed by manufacturers within the parametres of the pricing norms mentioned above, are subject to check by the Cost Accounts Branch of Ministry of Finance. The tractor manufacturers have been informed that within 2 weeks of any price increase effected by them, they should submit to Ministry of Finance (Cost Accounts Branch) the data in support of the price increase effected by them so that Government could examine if the above norms have in fact been observed. If in any event it is found that the increases do not conform to the norms, manufacturers will be required to adjust the excess in any future price refixation which they might contemplate. After the

rescission of the Price Control Order with effect from 29th October, 1974 almost all tractor manufacturers have increased the selling price of the tractors.

2. Government is keeping a constant watch on the prices of tractors, Government hope that with the steady increase in the production of tractors, prices will come down to acceptable levels due to the operation of market forces.

3. The question regarding reduction and uniformity in the rate of sales tax on tractors is being taken up by this Ministry with the Ministry of Finance. The idea is to adopt a uniform rate of sales tax in all the States not exceeding 3 per cent.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation Serial No. 58, Para 4.24)

Most of the land-holdings in our country are small and the farmers are unable to afford the ownership of heavy agricultural machinery. The Machinery Hiring Centres set up by the Agro Industries Corporation are at present the only way through which the benefits of mechanisation can be availed of by the small farmer. The Committee are informed that the Machinery-Hiring Centres and workshops in the remote areas of the country where population of machines is not large to make the Centres|Work-shops self-supporting are running at a loss. The committee recommend that Government may investigate the reasons for losses sustained by such Machinery Hiring Centres and Work-shops lest they may be on account of bad management or other short-comings which could be avoided. The Government may also consider other alternatives for making available the benefits of mechanisation to the marginal and small farmers in the remote areas of the country.

Reply of Government

1. This recommendation has been receiving attention of the Government. Accordingly, a D.O. letter has already been written to the Managing Directors of the Agro Industries Corporations to review the Machinery Hiring Centres Scheme run by the Corporations and also furnish detailed information in the proformas so that the evaluation could be made and the defects pin pointed for rectification. If necessary the assistance of the Centre for management in agriculture, Indian Institute of Management Ahmedabad would be sought.

2. The Machinery Hiring Centres run by the Corporations are mainly intended to provide the much needed services specially for the benefit of the small farmers in the remote areas of the country. Further, the Agro Service Centre Scheme sponsored by the Department of Agriculture also envisages the twin objectives of providing self employment opportunities to technical personnel and providing the much needed technical services to the farming community.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 77, Para 5.46)

The extension functions of the Agricultural Universities do not end with the periodical training of the higher achelons of Officers of the State Departments of Agriculture. In order that the knowledge of improved techniques of production and agriculture practices reach the farmer in the field quickly, the agricultural universities have to establish a direct linkage between the university specialists and experts and the farmers. This can be done most effectively by establishing university research centre at several convenient centres in the State. The university specialists and experts should periodically visit these centres at preannounced dates and hold discussions and demonstrations for the benefit of the lower level extension functionaries, farm leaders and farmers. Such a system would also have the advantage of a constant feed-back to the university of the farmers reactions to the new technology and problems confronted by them in their day-to-day agricultural operations. Krishi Melas organised by some universities notably at Pantnagar (U.P.) and by I.A.R.I. at Delhi etc. at regular intervals is another useful media which could be adopted by all the agricultural universities/institutes for establishing direct two way communication channel between the Universities/institutes and the farmers in the field. Such Melas should preferably be held in each administrative district for the convenience of the farmers. The Committee feel that the cost of these dispersed extra academic activities of the agricultural university pertaining to extension, education and training should appropriately be borne by the Government in the first phase. After some time, with the development of agriculture and sufficient income accruing to the farmers, a part of such expenditure may have to be borne by the farmers or the local self Government.

Reply of Government

Some of the Universities are already doing this. This item will be taken up for detailed discussion in a conference of Vice-Chancellors

of Agricultural Universities and State Governments will be addressed on this.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

Recommendation (Serial No. 112, Para 7.65)

The Committee note that the public agencies like Food Corporation of India, Central Warehousing Corporation and State Warehousing Corporations have an ambitious programme during the Fifth Plan period of building up storage capacity of nearly 6 million tonnes costing more than Rs. 175 crores. In addition, the co-operative sector is expected to build up capacity of another 3.6 million tonnes costing Rs. 100 crores. The Committee would like Government to examine closely the need for storage construction activity on such a large scale in the light of financial constraint and shortages of essential building construction material. In this context, the Committee would like to point out that Government have handled an operational and buffer stock of more than 8 million tonnes in 1972 with the help of hired storage accommodation.

Reply of Government

The question of review of the storage and warehousing capacities to be built during the 5th Five Year Plan is under consideration.

[Ministry of Agriculture and Irrigation (Department of Agriculture) O.M. No. 2-3/75-Budget, dated 30-1-1976].

NEW DELHI;
April 23, 1976.
Vaisakha 3, 1898 (*S*).

R. K. SINHA,
Chairman,
Estimates Committee.

APPENDIX

(*Vide* Introduction)

Analysis of the action taken by the Government on the recommendations contained in the 76th Report of the Estimates Committee (Fifth Lok Sabha)

I.	Total number of recommendations	113
II.	Recommendations which have been accepted by Government (*vide* recommendations at S. Nos. 2, 5, 6, 8 to 10, 21 to 24, 26, 27, 30 to 38, 41 to 51, 53, 59, 61 to 65, 67, 68, 73 to 76, 78 to 80, 82, 84 to 86, 88 to 90, 92 to 95, 97, 99, 100, 102, 104, 105, 107 to 111, 113)	
	Number	80
	Percentage to total	71
III.	Recommendations which the Committee do not desire to pursue in view of Government's reply (*vide* recommendations at S. Nos. 1, 3, 4, 20, 25, 28, 29, 39, 40, 52, 54, 57, 60, 66, 71, 72, 81, 83, 87, 91, 96, 98, 101, 103, 106)	
	Number	25
	Percentage to total	22
IV.	Recommendations in respect of which replies of Government have not been accepted by the Committee (*vide* recommendations at S. Nos. 7, 69, 70)	
	Number	3
	Percentage to total	2.5
V.	Recommendations in respect of which final replies of Government are still awaited (*vide* recommendations at S. Nos. 55, 56, 58, 77, 112)	
	Number	5
	Percentage to total	4.5