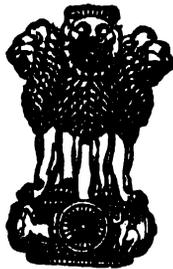


ESTIMATES COMMITTEE

Seventh Report
1953-54

MINISTRY OF FOOD AND AGRICULTURE



सत्यमेव जयते

PARLIAMENT SECRETARIAT

NEW DELHI

May, 1954.

CONTENTS

	PAGES
Composition of the Estimates Committee, 1952-53 and 1953-54	(i)—(ii)
Introduction	(iii)
I. Central Tractor Organisation (Land Reclamation)	1—19
II. Directorate of Plant Protection, Quarantine and Storage	20—29
III. Central College of Agriculture	30—33
IV. Central Potato Research Institute	34—36
V. General Recommendations	37—41
APPENDIX	42—52

ESTIMATES COMMITTEE

1952-53

CHAIRMAN

Shri M. Ananthasayanam Ayyangar.

MEMBERS

2. Shri B. Shiva Rao.
3. Shri U. Srinivasa Malliah.
4. Pandit Thakur Das Bhargava.
5. Dr. Panjabrao S. Deshmukh.*
6. Shri Balvantray Gopaljee Mehta.
7. Shri Nityanand Kanungo.
8. Shri Mohanlal Saksena.
9. Shri R. Venkataraman.
10. Shri Bali Ram Bhagat.
11. Shri Arun Chandra Guha.†
12. Shri Upendranath Barman.
13. Pandit Balkrishna Sharma.
14. Dr. Suresh Chandra.
15. Shri Shivram Rango Rane.
16. Shri Radhelal Vyas.
17. Shri Debeswar Sarmah.
18. Dr. Lanka Sundaram.
19. Shri Jaipal Singh.
20. Shri Shankar Shantaram More.
21. Shri Kadyala Gopala Rao.
22. Shri V. Muniswamy Avl. Thirukuralar.
23. Sardar Lal Singh.
24. Shri Girraj Saran Singh.
25. Shri Sarangadhar Das.

SECRETARIAT

Shri M. N. Kaul—*Secretary.*

Shri S. L. Shakdher—*Officer on Special Duty.*

*Resigned on 30th October, 1952.

†Resigned on 9th April, 1953.

ESTIMATES COMMITTEE

1952-53

CHAIRMAN

Shri M. Ananthasayanam Ayyangar.

MEMBERS

2. Shri Sarangadhar Das.
3. Shri Radhelal Vyas.
4. Shri Debeswar Sarmah.
5. Shri Nityanand Kanungo.
6. Pandit Balkrishna Sharma.
7. Shri Shivram Rango Rane.
8. Shri V. B. Gandhi.
9. Shri Upendranath Barman.
10. Shri R. Venkataraman.
11. Shri Balvantray Gopaljee Mehta.
12. Dr. Syed Mahmud.
13. Pandit Thakur Das Bhargava.
14. Prof. C. P. Mathew.
15. U. Srinivasa Malliah.
16. Shri Rayasam Seshagiri Rao.
17. Shri Ahmed Mohiuddin.
18. Shri Girraj Saran Singh.
19. Dr. Suresh Chandra.
20. Shri Mohanlal Saksena.
21. Dr. Lanka Sundaram.
22. Shri Kadyala Gopala Rao.
23. Shri V. Muniswamy Avl. Thirukuralar.
24. Shri P. N. Rajabhoj.
25. Sardar Lal Singh.

SECRETARIAT

Shri M. N. Kaul—*Secretary.*

Shri S. L. Shakhder—*Joint Secretary.*

Shri M. Sundar Raj—*Deputy Secretary.*

INTRODUCTION

I, the Chairman of the Estimates Committee, having been authorised by the Committee to submit the Report on their behalf, present this Seventh Report relating to the Ministry of Food and Agriculture.

2. As stated in paragraph 2 of the Introduction to the Sixth Report of the Estimates Committee, the examination of the Budget Estimates relating to the Ministry of Food and Agriculture for the year 1952-53 was taken up by the Estimates Committee for 1952-53. The Estimates Committee for 1953-54 continued further examination of the Budget Estimates relating to the Ministry of Food and Agriculture and held 16 meetings during the period July to December, 1953 and March-April, 1954, when they completed their deliberations on the different subjects. On the basis of the written materials furnished by the Ministry, the evidence taken and an on-the-spot study of the working of various Research Institutions etc. made by the sub-Committee of the Estimates Committee, the Committee formed their conclusions which are embodied in this report. An advance copy of the report was sent to the Ministry of Food and Agriculture for factual verification.

3. This Report embodies the conclusions of the Committee on—

- I. Central Tractor Organisation (Land Reclamation).
- II. Directorate of Plant Protection, Quarantine and Storage.
- III. Central College of Agriculture.
- IV. Central Potato Research Institute.
- V. General Recommendations.

M. ANANTHASAYANAM AYYANGAR.

NEW DELHI;

The 12th May 1954.

CENTRAL TRACTOR ORGANISATION (LAND RECLAMATION)

Introduction

In order to test the practicability of bringing weed-infested areas as also some of the new cultivable waste lands into cultivation, the Ministry of Agriculture in 1946 decided to carry out a *pilot project* by using tractors left in this country by the outgoing American Armed Forces. The year 1947-48 was more or less a year of spade work and experimentation. In that year apart from setting up of the workshop at Delhi, six units of 15 tractors each were put in operation in U.P., Madhya Pradesh and Punjab reclaiming a total of 32,531 acres. During the 1948-49 season, 165 machines were put into operation and they reclaimed a total area of 71,000 acres in the four States of U.P., Madhya Pradesh, Madhya Bharat and Punjab. The Ministry were satisfied with the reports of the crops grown in these areas.

2. The possibility of bringing back into cultivation large areas of weed-infested land for the production of foodgrains was thus considered to have been established. The Government of India prepared a scheme for the reclamation of 10 million acres of land, which was the target figure. The first phase of work envisaged reclamation of 3 million acres with 375 tractors operated for 7 years. The annual additional production of foodgrains from these lands was estimated at 1 million tons. The major portion of the machinery required for this purpose was stated to be available at that time only in the U.S.A. The Government of India negotiated a loan of 10 million dollars from the International Bank for the purchase of machinery of which 1.5 million dollars has since been surrendered, and the Government propose to surrender a further amount of 1 million dollars. The scheme as originally approved by the International Bank envisaged the purchase of 375 heavy reclamation tractors with allied equipments and the setting up of a heavy repair workshop at Bhopal; 345 were to be used for reclamation of kans-infested land in Central India and the remaining 30 tractors for reclaiming new cultivable jungle land in the Naini Tal District of U.P.

3. The Scheme is designed to work on a "no-profit no-loss" basis. The Central Government undertakes reclamation operations only on behalf of the State Governments and recovers the entire cost of reclamation from them. The State Governments in turn recover over a number of years the cost from the cultivators. The provisional rate of recovery from the States was fixed at Rs. 52 per acre after the devaluation in September, 1949. The rate of recovery is fixed from

year to year with reference to the actual expenditure incurred on the operations.

Functions of the C.T.O.

4. The main function of the Central Tractor Organisation is mechanised reclamation of jungle and weed-infested land as follows:

- (a) State-owned culturable waste land covered with scrub jungle.
- (b) State-owned kans-infested fallow land in Madhya Bharat, Madhya Pradesh, U.P. and Bhopal.
- (c) Private land, both fallow and cultivated, infested with kans.

5. The total area reclaimed by the Central Tractor Organisation upto the 31st March, 1953 is as indicated below:

(a) Kans-infested land	7,96,851 acres.
(b) Jungle clearance	33,544 acres.

Organisation

6. The Central Tractor Organisation consists at present of a headquarters office at New Delhi, two Base Workshops located at Delhi and Bairagarh and three Regional Offices—two at Bairagarh and one at Jhansi.

Budget Estimates

7. The Revised Estimates in respect of the Land Reclamation Scheme for 1953-54 are as under:

	Rs.
Pay of Officers	3,50,500
Pay of Establishment	22,10,000
Allowances, etc.	19,59,000
Other Charges	1,47,25,400
Interest Charges (Charged)	15,72,000
Gross Expenditure	2,08,16,900

Workshops at Delhi and Bhopal

8. For carrying out the functions set out in para. 4(a) above, three units of tractors (2 HD-19 and 1 D-7) were engaged in jungle clearance operations in the Terai Area in U.P. These units cleared about 37,000 acres of jungle land by June, 1953 thus leaving about 4,000 acres for clearing in 1953-54 season which are being cleared in this season. The old unit was disbanded at the end of the last season and out of the remaining two new units, one was withdrawn for kans clearance work in Sultanpore (near Bhopal).

9. Major overhaul and repair of these two units were being done at the Delhi Workshop. During the current year, the Delhi workshop was engaged in repair and overhaul of 45 tractors. The 14 units of tractors are all now engaged in kans-clearance (subject to

the jurisdiction of the Bhopal Workshop) and the 30 tractors that have been ordered recently will also be utilised for that purpose. There is a fairly big workshop at Bhopal which has so far been servicing 14 units of tractors, each consisting of 15 tractors. The Committee consider that the addition of two more units consisting of 30 tractors will not impose an undue burden on the Bhopal Workshop, which will be able to undertake efficient and cheap servicing of the two additional fleets as well.

10. The question, therefore, naturally arises as to what work the workshop at Delhi will be called upon to do in future. It was stated before the Committee that a few spare-parts were being manufactured there, but it was admitted that all these spare-parts which were required for the tractors were imported and that the workshop was not able to manufacture any spare-parts except a few for ploughs. The workshop's main function at present is to repair a few ploughs (whose price is practically negligible compared to that of the complete plough as a unit), maintenance and repairs of vehicles. Under the circumstances, the continued maintenance of this workshop only for the production of such spare-parts does not appear to be an economic proposition. The only other work that is being undertaken by the Delhi workshop is the rehabilitation of the Pashabhai implements, which are not being manufactured in our country, and as such, even if these ploughs are rehabilitated at the estimated cost of Rs. 10 lakhs, further auxiliary parts will not be available and it is unlikely, therefore, that any tractor owner will purchase these parts. Nor are they useful for jungle or kans-clearance. Mr. Girsperger, the foreign expert, who has been placed in charge of the rehabilitation of the Pashabhai implements has so far rehabilitated only 3 ploughs; and some land adjoining the Delhi workshop is said to have been ploughed by them. The Committee, however, learnt from the Deputy Secretary in charge of the C.T.O. that a farmer in Delhi who took one or two ploughs and used them with his tractors brought them back in a damaged condition complaining that they could not stand up to the rough use for which they were intended. The Committee consider it highly problematical as to whether these ploughs will serve any useful purpose even after reconditioning. The Committee feel that to maintain a huge workshop at an enormous cost for this purpose alone in the absence of any other work is a matter for serious consideration. Small tractors are in increasing demand in the country. The Committee, therefore, suggest that the possibility of manufacturing light tractors and agricultural implements and spare-parts should be explored, if the workshop has to be put to any use at all (in order to justify its continued existence). It is stated that this workshop is being used for overhauling about 30 tractors of a particular type. As these tractors will have to be serviced hereafter in

Seventh Report

Bhopal, for the reason that they will be engaged on the work of kans-reclamation in and around Bhopal, the Committee recommend that the work of overhauling may also be entrusted to Bhopal and, whatever additional machinery is necessary for this purpose, may be transferred from Delhi to Bhopal. The Committee are of the opinion that unless new work is found in the nature of manufacture of light tractors and their parts, the workshop at Delhi should not be continued. The heavy expenditure at present incurred thereon can be usefully saved.

Survey of land

11. So far as Bhopal area is concerned, it is said that the land has been surveyed and may be available for reclamation for the coming three seasons. Definite blocks are available for one season, i.e., for this year, while for the next year land is available but is yet to be surveyed and for the third year the land will have to be found out and surveyed. Therefore, even on the most optimistic calculations, there does not appear to be any need for maintaining the tractor units in this area beyond three years. The Committee, however, suggest that the Survey of India should undertake the survey of further kans-infested land in the four States namely, Bhopal, Madhya Pradesh, Madhya Bharat and U.P. well in advance of the scheduled date of completion of the present work. Otherwise, the loss of tractor-hours on account of non-availability of plots of land of the optimum size will be immense and considerable money will have to be spent on the maintenance of establishment etc.

Establishment at Bhopal

12. So far as the establishment maintained in Bhopal for administration and field work is concerned, the Committee feel that there is scope for considerable reduction in the supervisory posts. At present, there are, besides Drivers and Foremen for each unit, Assistant, Executive and Divisional Engineers for over-all supervision. As there is a full-fledged workshop in Bhopal and the land around Bhopal is not of such a nature as to call for much of expert engineering knowledge, the Committee consider that Foremen are competent to repair the tractors on the spot and, that when it is not possible for them to do so, the tractors should either be sent to Bhopal for servicing and repairs or be attended to by the mechanical staff sent from Bhopal. The Committee consider that the posts of Assistant, Executive and Divisional Engineers can be reduced if the above suggestion is followed.

Reclamation costs

13. The cost of kans-clearance per acre has been mounting up from time to time as the following figures will show:—

Rs. 40 (originally fixed)

Rs. 42 (after the International Bank came into the picture)

Rs. 52 (after devaluation)

Rs. 54 (present cost).

It is true that the entire cost will be recovered from the cultivators ultimately, but it will be unfair, in the opinion of the Committee, to be indifferent to the mounting cost merely because it is recoverable from the cultivators.

Loss of Tractor-hours

14. The Committee consider that the number of tractor-hours lost already for one reason or the other is high. The number of hours lost in one year alone is of the order of 35,454 on account of non-availability of spare parts in time and break-downs. The figures for the loss of tractor-hours for want of proper survey and due to non-availability of plots of land of optimum size as furnished by the Ministry are given below:

1950-51	1,166 hours
1951-52	33 hours
1952-53	Nil.

The Committee recommend that energetic steps should be taken to prevent the occurrence of such losses in future.

Setting up of a Corporation

15. The only piece of work that the C.T.O. is now usefully engaged on is the kans-reclamation in the Central India. Since it was un-economic to send the tractors all the way from Delhi for reclamation in this area, a workshop was established at Bairagarh (Bhopal). But the four States, in whose territory the work of reclamation is going on, have no say in the management of the workshop or control over the field organisation. The Committee consider that if the States for whose benefit the tractors are being worked are allowed to have a hand in the management, the work of reclamation can be carried out more efficiently, and at less cost, by a reduction in overheads and in the expenditure on account of travelling allowance, etc. Accordingly, the Committee suggest that a Corporation may be formed consisting of the representatives of the State Governments concerned and a few representatives of the Centre charged with the management of the Bhopal workshop along with the tractors. It should be ensured that this Corporation will be run on sound commercial lines. There does not appear to be any need for kans or jungle clearance in any other part of the country though it was stated that some Officer in Orissa informed the Deputy Director of the C.T.O. that some land could be reclaimed usefully in Orissa and that there were possibilities of weed reclamation in Hyderabad but neither of these Governments have so far approached the C.T.O. or the Central Government for such assistance. The Committee note that the Hyderabad Government have now approached the Central Tractor Organisation for jungle

clearance and ploughing work in 5 projects including the Tungabhadra Project lying in that State, and that this is under the active consideration of the Ministry of Food and Agriculture. If after the period of three years or such longer period as the services of the C.T.O. are needed for kans-clearance in Central India, any scheme sponsored by a particular State for jungle or kans-clearance appears to be feasible and blocks of the optimum size are available, then the tractors may be diverted to such areas.

The fallow land in the country which is left uncultivated year after year is of the order of 67 million acres. The Committee consider that the land reclaimed at huge costs, if allowed to get re-infested on account of remaining uncultivated, will lead to waste of public money.

Stores Purchase Policy

16. The policy adopted by the Ministry in regard to the purchase of stores and equipment has been unsatisfactory. The organisation was originally formed with a view to rehabilitating and making available for the 'Grow More Food Schemes' of the various State Governments 308 Caterpillar tractors and 4 International Harvester tractors of Crawler type taken over from the American Disposals. Later on the objective was changed and the C.T.O. itself took up the reclamation of kans-infested land by means of deep ploughing. The initial successes led the Government to draw up a programme of reclamation of 3 million acres of kans land in the States of U.P., Madhya Pradesh, Madhya Bharat and Bhopal over a period of seven years. A loan was negotiated with the International Bank for Reconstruction and Development and 180 tractors—90 Oliver FDE and 90 Allis-Chalmer HD-19—were purchased in 1949. Before the purchases were made no effort was made by Government to determine the operational efficiency of the above makes of tractors under Indian conditions. Without sufficient data to guide them and without possessing the technical know-how of the tractors, purchases were made involving a capital expenditure of Rs. 95,73,384 (excluding freight etc.). Subsequent experiments conducted by the C.T.O. have proved these tractors to be uneconomic. The machines necessitated frequent overhauls and repairs due to the unmatching implements and defective parts going out of use quickly. It was stated by the representative of the Ministry that the tractors most suitable under Indian conditions were Caterpillar D-8 and International Harvester TD-24. The older machines and the spares now present a big problem for Disposals authorities.

17. Apart from the purchase of unsuitable tractors, another costly mistake was committed in ordering a bulk purchase of 24 diesel trucks in 1949 costing \$1,28,802. Before making purchases, no effort was made by Government to ascertain in the economics of diesel opera-

ted trucks. It has been found by the C.T.O. that these diesel trucks are operationally unsuitable and uneconomic. These diesel engines are being discarded and replaced by petrol engines. The Committee deprecate this lack of planning and foresight. Purchases in the initial stages should have been made on a trial basis to establish their operational suitability and efficiency. This persistent lack of planning has resulted in a loss of the nation's money. The Committee recommend that steps should be taken by Government to fix the responsibility for these losses and to take suitable action against those Officers who have been found guilty of irregularity.

The Committee are surprised to note the extenuating circumstances put forth by the *Zaidi Committee in this behalf that some mistakes were inevitable in an enterprise of the magnitude undertaken by the Central Tractor Organisation with no precedents and traditions. The Committee regret that they are unable to subscribe to the views held by the *Zaidi Committee. They consider that some serious action is called for against the officials responsible for the heavy losses which have resulted from the imprudent policy in the matter of purchase of tractors, stores and surplus spare-parts, etc.

18. In order to ensure that purchases in future are made on a planned and rational basis, it is imperative that a long-term purchase policy is adopted and the placing of *ad hoc* indents discontinued. It has been represented to the Committee that a Special Engineering Planning Section has been set up in order to scrutinise the demands from the field and to ensure that adequate supplies are available to the field units at all times. But the Committee have not noticed any evidence of their work; the purchase and supply policy of spare parts remains as haphazard as ever. The Committee recommended that the indenting of spareparts should be carefully planned and phased and, before orders are finally placed, they should be scrutinised by a Committee consisting of a Senior Agricultural Engineer, the Financial Adviser and one representative each from the Ministry of Food and Agriculture and the Directorate-General of Supplies and Disposals.

Standardisation of tractors and accessories

19. The present position in this matter is very unsatisfactory. In the original scheme to have a fleet of 375 heavy tractors, there was no planning to obviate the purchase of unsuitable tractors and spare parts. No thought was given to find out which tractors would answer Indian requirements best. It is stated that at the time four makes of heavy tractors for reclamation were available in the U.S.A. only, namely, Oliver FDE, Allis-Chalmers HD-19, Caterpillar D-8, and International Harvester TD-24. The Ministry have failed to give any adequate explanation why, when very heavy capital expenditure was

*Please also see Para. 31 (iv).

Seventh Report

involved, no question of experiment and trial was considered and in 1949, 90 Oliver FDE and 90 Allis-Chalmers HD-19 were straightway purchased along with allied equipment. In 1950, it was decided to purchase 60 heavy tractors of two other makes, namely, 30 Caterpillars D-8 and 30 International Harvesters TD-24 together with accessories. From operational experience, the C.T.O. found the Caterpillars to be the most efficient and economical of the four different makes in use, the International Harvesters coming next. Accordingly orders for 30 more Caterpillars were placed.

The Committee feel that the Ministry has avoided carrying out experiments on a modest scale with different makes of heavy tractors then available in the world market outside the U.S.A.

20. The indiscriminate purchase of four different makes of heavy tractors and accessories has necessarily created difficult problems, particularly in the matter of maintenance and spare parts. It is pleaded that, originally, the spare parts were purchased entirely on the advice of the manufacturers themselves. The C.T.O. has found that some parts wear out more quickly than others. The position is that there is not sufficient stock of the fast-moving spare parts whereas there is a very large surplus of others. The task of balancing the supply of spare parts is a continuous one and the Committee feel this can be best achieved by a policy of standardisation of tractors and by a judicious purchase of accessories. It has been represented that a policy of standardisation would result in monopolistic prices. This argument lacks force as our purchasing agencies abroad can see to it that they do not pay higher prices than other countries. All things considered, the Committee are of the view that Government should follow a policy of standardisation of tractors.

"Follow-up" Cultivation

21. At present the land after reclamation is handed over to private owners and the reclamation charges are recovered from them in instalments by the State Governments concerned. The responsibility of carrying out the "follow-up" operations rests on the individual farmers and State Governments. In the majority of cases the operations are carried out. But in some, due to circumstances beyond the farmer's control, the lands remain uncultivated after reclamation, resulting in re-infestation.

The Committee are of the opinion that follow-up cultivation is the responsibility of the individual farmers and State Governments and not that of the C.T.O. As follow-up cultivation is often carried out by bullock ploughing, there is a danger of re-infestation after three or four years. The State Governments should see to it that this re-infestation is prevented by deep ploughing with medium tractors every four years. Otherwise the work of reclamation done by the C.T.O. would be largely wasted and lost.

Increase in Food Production

22. The I.C.A.R. has conducted a sample survey of the increase in food production as a result of the reclamation operations of the C.T.O. Their figures show that in the case of lands which were under cultivation previously, but subsequently infested and reclaimed, the increase in yield was about three maunds per acre; and in the case of lands which were lying fallow all along before reclamation the yield was of the order of nine maunds per acre. In view of the fact that the yield is much higher on the fallow lands the C.T.O. should concentrate more and more on work which gives greater dividends. The Committee also recommend that an accurate assessment of the increase in food production as a result of the activities of the C.T.O. should be undertaken by the National Sample Survey.

Economics of Reclamation Work

23. The costs of kans reclamation for the years 1950—52 are given below:—

Year	Old Units	New Units
1950-51	Rs. 29/8/- per hour	Rs. 58/- per acre
1951-52	Rs. 24/8/- "	Rs. 55.57 "

Considerable doubts have been expressed about the incidence of the cost of reclamation on the farmers. The primary beneficiary of the reclamation scheme is the farmer and it has to be ensured that the cost of reclamation is not an undue burden on him.

It was stated before the Committee that the State Governments usually recovered the cost of reclamation operations from the cultivators in five annual instalments. The recovery per year works out to about Rs. 12 per acre which is less than the price of a maund of wheat or gram. As against this, the cultivator on an average is estimated to get an extra yield of about three maunds per acre on cultivated areas and nine maunds on fallow land.

Though the incidence of the reclamation charges on the farmers, as revealed by the above figures, may appear reasonable, the Committee gather that the cost of reclamation has gone up to Rs. 65 per acre for ploughing blocks between 100 and 200 acres. In view of this fact, the Committee recommend that an accurate assessment of the costs of reclamation should be undertaken. No effort should be spared to keep down the charges, at least, at the existing levels.

The Committee have examined Chapter IV of the *Zaidi Committee's Report which deals with the increase in the cost of reclamation. The principal question arising out of the examination is to what extent, the cost of the reclamation operations is to be borne by the cultivator. The Committee are of the considered view that in

*Please also see Para. 31 (iv).

Seventh Report

no circumstances should the cultivator be burdened with the increased costs of the reclamation operations. The *Zaidi Committee evidently feel that the cost of Rs. 52 per acre is an immutable figure that has to be taken as the yard-stick of measurement of the cost. The Committee cannot agree to this view because costs continue to change as they have changed in the past and in any case an attempt should be made to reduce this figure. Actually, during the course of their investigation, the Committee had arrived at the proposition that the figure of Rs. 52 was not only determined some four years ago, but was due to the mismanagement of the affairs of the C.T.O. The Committee, therefore, recommend that the Government should institute an enquiry to examine how these losses came about, who were responsible for these losses and after enquiry has been made and responsibilities fixed, take suitable action. This Committee should be charged with the task of making recommendations for the reduction of the various elements which have contributed to the computation of the figure of Rs. 52 per acre. The Committee are not satisfied with the reasons for the losses given by the *Zaidi Committee. They consider that a further enquiry into this matter should be made and the findings of that Committee should be placed before them for consideration in due course.

Disposal of surplus stores

24. One direct result of the uncoordinated and unplanned policy which has been followed all the while is the accumulation of huge surplus of spare parts, equipment, stores, etc., estimated at over a crore of rupees (including Pashabhai implements). A sub-Committee visited the Central Tractor Units in Bhopal and the workshop in New Delhi in June, 1953 and had an opportunity of seeing on the spot the extent and conditions of the stores which were stocked in the depots. Although an inventory of the materials has been started, it has not been completed so far and there are packing cases which have still to be opened and whose contents have yet to be examined. It is indeed surprising that nearly 500 boxes containing spare parts of Caterpillar Tractor received from American Disposals have remained unopened for the past 2 years and more. Among the surplus equipment and stores are listed the following:—

	<i>Equipment</i>	<i>Value</i>
American Disposals: Caterpillar D 7 Tractor		Rs. 15,90,000/-
Direct Purchases by the C.T.O. One ton Trailers		Rs. 58,500/-
Foundry Equipment		Rs. 1,44,572/-
Rome Master Disc Harrows		Rs. 4,16,220/-
Athens Harrow and ploughs		Rs. 2,45,616/-
Case Tractors with All Evans Winches		Rs. 2,23,500/-
International Trucks		Rs. 4,16,000/-

*Please also see para. 31 (iv).

The book value of the above articles comes to about Rs. 31 lakhs and the reasons advanced for declaring those articles surplus confirm abundantly the lack of planning and foresight on the part of the authorities responsible for their purchase and maintenance. The Rome Master Disc Harrows and Athens Harrows and Ploughs were purchased at a cost of nearly Rs. 6.5 lakhs for harrowing after clearing of jungles in forest lands. It was later found that these Harrows and Ploughs were uneconomical for use on heavy tractors. The one ton trailers were ordered against an indent for 195 tractors. The indent for tractors was cancelled but this item could not be cancelled as the order was executed prior to the cancellation of the indent. A foundry was set up at Delhi at a cost of Rs. 1½ lakhs but later on it was found that there was not much use for it. Case Tractors with All Evans Winches were purchased for jungle clearance work but the C.T.O. found that they could not be utilised. The case of the International trucks fitted with diesel engines has already been mentioned before. It has been stated by the representative of the C.T.O. that on account of the non-availability and high cost of spare parts and due to various changes in regard to the requirements of vehicles it has been decided to replace the diesel engines by petrol engines. As a result of this decision diesel engines on the 24 1-H.C. Trucks would be scrapped and 8 new 1-H.C. Trucks would be disposed of. These instances go to show that orders were placed and are being placed haphazardly and a large quantity of stores including spares were accepted without any scrutiny. The Committee deprecate the indiscriminate purchase of stores and equipment and urge upon the Government the necessity of bringing the defaulting officials to book.

The Committee fail to see why enormous quantities of stores from 70—80 per cent. of the cost of tractors should have been imported particularly when the general policy of the Central Tractor Organisation has been to order spare parts of the value of 25 per cent. of the capital cost of tractors along with the tractors, as per suggestion of the World Bank and thereafter quantities based on the actual condition of the machines and experience gained. It has been stated by the Ministry that the original purchases of spare parts were made on the basis of the advice tendered by the manufacturers' representatives in India. But the C.T.O. should have assessed their exact requirements before placing bulk indents. The Committee recommend that Government should take steps to enquire into the circumstances in which such haphazard purchases of stores and spares were made. They further recommend that a small Committee including an expert Cost Accountant should be asked to undertake an accurate assessment of the value of the tractors and all other equipment and stores at present in the possession of the C.T.O.

25. Prior to the 1st April, 1953, the C.T.O. itself was responsible for the disposal of its surplus stores and equipment. It has been stated before the Committee that prior to the transfer of disposal work to the Directorate-General of Supplies and Disposals on the 1st April, 1953, the C.T.O. had disposed of surplus stores of the book value of Rs. 16,78,623 at a profit of Rs. 8,80,138 which was made up as under:—

Sale of surplus stores from American Disposals—Rs. 8,73,346.

Sale of surplus stores arising out of direct purchases—Rs. 6,792

The quality of stores disposed of has not been stated.

26. The Committee understand that the Directorate-General of Supplies and Disposals are experiencing considerable difficulty in accelerating the pace of disposal on account of the slow rate of declaration of surpluses by the C.T.O. So far goods worth Rs. 41,50,000 (excluding Matsya Union equipment worth Rs. 6,68,744 and Pashabhai implements worth Rs. 48,42,650 not declared as surplus so far) only have been declared surplus. The Committee feel that unless all the available surpluses are forthwith declared by the C.T.O., it will not be possible for the Directorate-General of Supplies and Disposals to prepare a uniform disposal policy. The Committee, therefore, recommend that early steps should be taken to declare the outstanding surpluses to the Directorate-General of Supplies and Disposals. With regard to the disposal of surplus goods, the Committee recommend the adoption of a positive policy. All efforts should be made to return such of the spare parts and allied equipment as are not required through the manufacturers' agents in India and such spares as are needed most may be obtained in exchange. The disposal of unwanted, unusable and unexchangeable surplus stores etc. should be expedited.

The Committee further recommend that an Officer of the D.G.S.&D. should be asked to undertake an evaluation of all the surplus stores lying with the C.T.O. (but which have to be declared surplus yet). The Government should further explore the feasibility of reverting to the earlier practice of allowing the C.T.O. to dispose of its surplus goods without the intervention of the D.G.S.&D., if such a step should prove efficient and conducive to speedy disposal.

Pashabhai Patel Implements

27. The services of Mr. Girsperger, a foreign expert, have been placed at the disposal of the Central Tractor Organisation for a year by the F.A.O. in connection with the redesigning of Pashabhai implements. The programme of rehabilitation of these implements has been described by the Ministry as under:—

“Mr. Girsperger proposes to start with the dismantling of three implements of each type and reassembling them after

observing faults in original assembly and workmanship and rectifying the same. No changes will be made at this stage. The implements will then be put on trial in the field and the defects observed during the trial will be noted, changes in design made and new parts made and fitted to overcome these defects. The ploughs will again be tried under field conditions and this will be continued till they operate satisfactorily."

It has been estimated that the cost of rehabilitation of these implements will come to about Rs. 10 lakhs. According to Mr. Girsperger, these implements, even after rehabilitation, will not be suitable for reclamation work. The Committee recommend that the C.T.O. should not proceed with the wholesale rehabilitation of these implements until the utility of the rehabilitated implements is established and State Governments place firm orders. They suggest, that a limited number, say, two dozen ploughs, may be rehabilitated and sent to the States for trial and the remaining ploughs should be rehabilitated only if the States place firm orders for the same.

Recoveries from State Governments

28. The Committee are given to understand that huge amounts are outstanding from the State Governments for the reclamation work done by the C.T.O. (as shown in Appendix I). In the case of U.P. alone the total outstandings as on the 31st March, 1953 amounted to about Rs. 77 lakhs. It appears that the U.P. Government have objected to the increase of costs over the original estimates. The Committee, therefore, recommend that Government should take immediate steps to examine the reasons for the increase in reclamation costs and the propriety of having raised additional debts against the States. Early steps should be taken to realise the outstanding dues from the States.

Total loss suffered by the C.T.O.

29. The Committee note that the C.T.O. suffered a loss of Rs. 68,32,707 during the three operational seasons 1950-51 to 1952-53. The Committee consider, however, that the actual amount of total loss must be more than this figure and will not be known until—

- (i) surplus stock of spare parts etc. of the value of about a crore of rupees is sold to see whether the book value is realised or not; and
- (ii) whether the State Governments would pay in full the dues amounting to Rs. 5.16 crores outstanding against them on the 31st March, 1954, or at least acknowledge their liability which they have not done so far.

In the circumstances, the Committee desire that the total amount of loss should be worked out after taking action on the lines suggested above after a year or so and the question of either allocating it *pro rata* to the State Governments concerned or writing it off might be considered then.

General recommendations

30. The Committee recommend the adoption of the following measures which will go a long way to tone up the efficiency and economy in carrying out the reclamation and clearance operations in this country:—

- (i) With the setting up of the Corporation as proposed by the Committee, the field supervisory staff should be considerably reduced and new scales of pay similar to those obtaining in the States introduced.
- (ii) A thorough pruning of the existing headquarters staff should be undertaken and on the basis of the minimum requirements of the staff, the surplus posts should be abolished.
- (iii) An Advisory Committee should be constituted for scrutinizing indents for fresh stocks of spare-parts and equipment.
- (iv) The Delhi Workshop should be utilised for the purpose of manufacturing light tractors and agricultural implements and spare parts and till such time that the workshop is able to undertake this work, it may be temporarily shut down and only a skeleton staff need be retained.
- (v) The workshop at Bhopal should also be utilised for cannibalising some of the tractors by using the spares available. It may be mentioned in this connection that the Finance Ministry were not in favour of this suggestion. If this is true, the Committee would urge upon the Ministry of Finance to reconsider their decision.

Appointment of Zaidi Committee

31. (i) On the 20th August, 1953, in answer to a question on the floor of the House, it was stated that the Government had appointed a Committee partly consisting of Members of Parliament and partly officials of the Ministry of Food and Agriculture to examine the working of the C.T.O. This raised a storm of protests from the various sections of the House that while the Estimates Committee were

examining the subject, it was not proper for the Government to constitute a parallel Committee consisting of Members of Parliament wholly or partly to examine the same subject. The Minister of Agriculture assured the House that he had no intention to bypass the Estimates Committee and in fact he was not aware that the Estimates Committee or a sub-Committee thereof were examining the working of the C.T.O. at the same time.

(ii) The Committee have considered this matter carefully and have also sought the guidance of the Speaker. The Speaker directed that it was not correct for any Ministry whose affairs were being examined by a Financial Committee of Parliament to appoint a parallel Committee consisting wholly or partly of Members of Parliament to examine the same matter at the same time without the knowledge of the Committee. The Committee have been informed that in accordance with this directive of the Speaker, the following communication has been sent to the various Ministries of the Government of India by the Parliament Secretariat:—

“* * * * * Before appointing any Committee consisting wholly or partly of Members of the House of the People, the administrative Ministry concerned may make a reference to the Parliament Secretariat to ascertain whether a Parliamentary Committee is already engaged on any of the matters on which Government propose to appoint a Committee.”

(O.M. No. F. 94-FC/53. dt. 9-11-53).

In the present case, the Speaker directed that since a Committee had already been appointed by the Ministry of Food and Agriculture, it would be proper if the Report of that Committee together with all the materials on which the report was based was made available to the Estimates Committee and that the Estimates Committee examined that Report before making their final recommendations. The Minister of Agriculture readily complied with the direction of the Speaker and accordingly the Report of the Estimates Committee, which was finalised in October 1953, was kept pending until the receipt of the Report and papers of the Committee appointed by the Government.

(iii) The Estimates Committee have also considered how far and in what circumstances Government may appoint Committees for consideration of the same matters and subjects which are under the examination of the Estimates Committee at the same time. The Committee feel that—

(a) so far as Departmental Committees consisting of officials of Government are concerned, the Committee have no

objection to Government appointing one or more Committees for consideration of any matters which are concurrently under the examination of the Estimates Committee, but the Reports of such Committees should not be published without the concurrence of the Estimates Committee:

- (b) the matters referred to such Departmental Committees should normally relate to technical subjects where expert advice is necessary and reference of matters of general nature should be avoided; and
- (c) whenever Government propose to appoint a Committee consisting wholly or partly of non-officials, including Members of Parliament, while the matter is under examination of the Estimates Committee, it should invariably be the practice that the Chairman of the Estimates Committee is consulted in advance as to the constitution of such a Committee. The Estimates Committee may themselves examine the matters proposed to be investigated by the Committee of the Government or authorise Government to proceed with the formation of the Committee as they may consider fit

The object behind this procedure is that there should be no occasion for Members of Parliament or other non-official members to come into clash with each other by making different recommendations in different Committees. This will also be confusing to the public mind as well as to the Government and in such cases, it will be difficult to adopt a clear line of policy without much argument and resentment. It is in the interest of the administration as a whole that there should be some guidance to the Government from authoritative sources in regard to the policy to be pursued by them and nothing should be done which will bring the Members and Government into conflict with each other. The Committee, therefore, recommend that in future this course should be adopted as a uniform practice by all Ministries of the Government of India. In case a doubt arises in any particular matter, the guidance of the Speaker should be obtained.

(iv) As regards the present case, the Committee would like to place on record the following facts:—

The Estimates Committee notified to the Ministry of Food and Agriculture on the 12th July, 1952 that the Estimates and the working of the Ministry in all its aspects would be undertaken by the Committee as soon as memoranda and information asked for by them were furnished to the Committee. The Ministry supplied memoranda and other material to the Committee by the 10th September,

1952. The material also included complete memoranda on the Central Tractor Organisation. On the 22nd December, 1952 the Committee appointed a sub-Committee to study the working of the Central Tractor Organisation and cognate matters. The Committee examined Shri C. V. Narasimhan, the then Chairman of the C.T.O. on the 12th January, 1953. The sub-Committee met from time to time and paid visits to the C.T.O. at Bairagarh (Bhopal) and Terai (U.P.) for an on-the-spot study of the reclamation operations and working of the C.T.O. units, etc. The sub-Committee then met on the 24th and 26th June, 1953 and examined the Chairman, the ex-Chairman and an expert of the C.T.O. The main Committee considered the draft report prepared by the sub-Committee on the 16th and 18th July, and came to conclusions on the 25th July, 1953. These conclusions were embodied in the draft report and approved by the Committee. On the 8th October, 1953, the draft report was sent to the Ministry of Food and Agriculture for factual verification. The report was returned by the Ministry with their comments on the 23rd October, 1953.

Meanwhile, as stated earlier, it became known in answer to a question on the floor of the House that the Government had appointed a Committee of their own to examine the working of the C.T.O. On looking into the matter, the Committee find that the Ministry of Food and Agriculture appointed on the 25th March, 1953 a Committee consisting of the following to enquire into certain aspects of the Land Reclamation Project:—

Col. B. H. Zaidi, M.P.—*Chairman*

Shri Govinda Reddy, M.P.—*Member*

Shri G. R. Damodaran, M.P.—*Member*

Shri C. V. Narasimhan, Joint Secretary, Ministry of Food and Agriculture—*Member-Secretary*.

On the 29th April, 1953 Shri C. V. Narasimhan was transferred from the Ministry of Food and Agriculture and the Committee was re-constituted as follows:—

1. Col. B. H. Zaidi, M.P.—*Chairman*.
2. Shri M. Govinda Reddy, M.P.—*Member*.
3. Shri G. R. Damodaran, M.P.—*Member*.
4. Shri P. N. Thapar, Adviser, Planning Commission—*Member*.
5. Shri M. R. Bhide, Joint Secretary, Ministry of Food and Agriculture—*Member*.

6. Mr. F. Girsperger, F.A.O., Expert attached to C.T.O.—*Adviser.*
7. Shri F. C. Gera, Under Secretary, Ministry of Food and Agriculture—*Secretary.*

(Mr. Girsperger ceased to work with the Committee with effect from 10-11-53, as he left India on that date.)

The Committee appointed by Government briefly referred to as the 'Zaidi Committee' in this Report, examined the whole matter and submitted their Report to the Government on the 9th March, 1954. The Ministry of Food and Agriculture forwarded this Report to the Committee on the 18th March, 1954.

(v) The Committee have examined and considered the Zaidi Committee Report and find that a large number of recommendations made by that Committee are more or less the same as contained in this Report. In regard to other matters which are not common to the two Reports, the Estimates Committee have no comments to make except on the following:—

- (a) The rather too light a view taken by the Zaidi Committee regarding the failure of the officials responsible for the heavy losses suffered by the C.T.O. in the purchase of tractors, stores and spare parts. (*See Para. 17.*)
- (b) Losses suffered by the C.T.O. by the increase in the cost of reclamation. (*See Para. 23.*)
- (c) Total loss suffered by the C.T.O. during the operational seasons. (*See Para. 29.*)

(vi) It is interesting to note in this connection that the Zaidi Committee consisted partly of the Officers who had appeared before the Estimates Committee and had given evidence relating to C.T.O. and secondly, that the Report of the Estimates Committee was forwarded to the Ministry of Food and Agriculture in October 1953 and was presumably dealt with by the official members of the Zaidi Committee in their capacity as officers of the Ministry of Food and Agriculture. In any case, it is reasonable to assume that some members of that Committee were aware of the observations and conclusions of the Estimates Committee for a period of six months before that Committee made their final report to the Government.

(vii) The Committee have no objection to the publication of the Zaidi Committee Report in such manner and at such time as Government may think fit to do so.

APPENDIX I

Statement showing amounts outstanding for work done by New Units of C.T.O.

Name of State	Amount outstanding on 31-3-53		Debits in respect of work done during 1952-53 season (adjustable in 1953-54)*		Amount recovered during 1953-54		Balance on 31-3-54	
	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.
Madhya Pradesh .	48,19,540-6		42,77,289-15		..		90,96,890-3	
Uttar Pradesh .	77,05,563-6		71,55,390-0		17,52,370-0		1,31,08,583-6	
Madhya Bharat .	60,76,111-11		57,52,541-0		4,50,000-0		1,13,78,632-15	
Bhopal .	1,38,61,707-1		41,16,351-14		..		1,79,78,058-15	
TOTAL .	3,24,62,922-8		2,13,01,573-1		22,02,370-0		5,15,62,125 9	

*Accounts not yet closed and adjustments not yet made by the A.G.C.R.

DIRECTORATE OF PLANT PROTECTION, QUARANTINE AND STORAGE

32. The Directorate of Plant Protection, Quarantine and Storage was established in 1946 to coordinate the activities of the various States in regard to the control of serious pests and diseases. A part of the Storage Directorate of the late Food Ministry (now Food Wing of the Ministry of Food and Agriculture) was amalgamated with the Directorate of Plant Protection in 1947 but was retransferred to the Food Division in 1948.

Organisation and Functions

33. The functions of the Directorate are:

- (a) Control of locusts including survey and intelligence work.
- (b) Coordination of State control of other migratory pests and diseases of all-India importance, such as cereal rusts, smut etc.
- (c) Preventing entry into India of foreign pests and diseases carried on plant material imported by sea, air and land.
- (d) Domestic quarantine work.
- (e) Arranging for the introduction of selected parasites and predators for the biological control of pests, weeds, etc.
- (f) Collection of information about the distribution of insects, fungi, and other injurious organisms and methods of their control.
- (g) Assisting the States in carrying out field operations against pests and diseases.
- (h) Dissemination of information, co-ordination with International Plant Protection and Quarantine Organisations.

The Directorate functions through the following Divisions:—

- (i) Division of Entomology.
- (ii) Division of Plant Diseases and Weeds.
- (iii) Division of Foreign Quarantine.
- (iv) Locust Division.
- (v) Administrative and Personnel Division.

34. The revised estimates for 1953-54 in respect of the Directorate of Plant Protection, Quarantine and Storage are given below:—

(i) Pay of Officers	Rs. 2,01,200
(ii) Pay of Establishment	Rs. 5,87,100
(iii) Other Charges	Rs. 23,95,000
TOTAL	Rs. 30,83,300

The grant is divisible between the two Wings of the Directorate—Plant Protection and Locust Organisation—as under:—

(a) Plant Protection	Rs. 10,35,800
(b) i Locust Warning Organisation	Rs. 7,34,900
ii Anti-Locust Coordinated Scheme	Rs. 14,82,600
TOTAL	Rs. 31,83,300

The entire expenditure on Plant Protection is met from Central Revenues. The sum of Rs. 14,12,600 being the cost of Coordinated Anti-Locust Scheme will be recovered from the State Governments.

35. The Committee have examined the present set-up of the Directorate and have also pursued the recommendations of the Economy Committee relating thereto. They are of opinion that the Organisation of the Directorate has been built up on a liberal scale and there is considerable scope for economy. A review of the existing set-up and the suggestions of the Committee for effecting economy are given in the succeeding paragraphs.

Division of Entomology

36. There are two posts of Class I Officers, viz., Storage Entomologist and Documentation Entomologist. The Economy Committee in their Report on the Directorate of Plant Protection, Quarantine and Storage had made the following recommendations:

“Separate Divisions of Foreign Quarantine, Plant Diseases and General Entomology at Headquarters are unnecessary and should not be established. The duties of the heads of these Divisions are to carry out research and to give advice to both the Quarantine Officers and Provincial Governments. In order to carry out research and to give advice, laboratory facilities will be needed. We are clearly of the opinion that all such work should be concentrated in the Indian Agricultural Research Institute where the necessary facilities already exist to a considerable extent.”

This recommendation was, however, not accepted by Government. It was pointed out by the Ministry that the work of the Division

was not research but the organising of campaigns against pests and diseases and taking of measures to prevent further spread of diseases inside the country.

The Committee agree that the Division of Entomology does not undertake actual research work and its functions are administrative and advisory. On an examination of the set-up of the Division, they are convinced that there is considerable overlap of functions resulting in duplication of staff. The Division has four Branches: (a) Insect Bureau, (b) Insecticide, (c) Control of insect pests by Biological methods, and (d) Storage of agricultural commodities. The function of the Insect Bureau is to collect information about different pests, their habits, distribution etc., and to maintain a record of their methods of control. These functions are also performed by the Division of Entomology of the Indian Agricultural Research Institute, New Delhi. The Insecticide Branch undertakes field trials of insecticides to test their efficacy. Insecticides are also tested in the Chemistry Division of the Indian Agricultural Research Institute. Moreover, the testing of insecticides is appropriately the function of the State Entomologists.

The Storage Branch deals with storage of agricultural commodities under village conditions and also renders advice to State Governments. There is also a Directorate of Storage and Inspection under the Ministry of Food and Agriculture which looks after the problems of storage of foodgrains in Government godowns.

The Committee desire that the Directorate should function in close liaison with the Entomology Division of the I.A.R.I. in so far as the collection of data on pests and diseases is concerned. The work of the Division relating to storage should be transferred to the Directorate of Storage. There should be only one section to maintain liaison with the I.A.R.I., New Delhi and the Directorate of Storage and Inspection. The Committee accordingly make the following recommendations:—

- (i) The post of the Storage Entomologist should be combined with that of the Director of Storage and Inspection. Instead of two Officers, there should now be only one Officer.
- (ii) There should be only one Entomologist (Class II) who will act as a Liaison Officer between the Plant Protection Directorate and the Directorate of Storage and Inspection on the one hand and the I.A.R.I., New Delhi on the other.
- (iii) There are at present two posts of Technical Officers. One of the Technical Officers is responsible for the testing and field trials of insecticides. As stated above, the

Testing of insecticides is appropriately the function of the State Entomologists. One post of Technical Officer should therefore, be abolished. The other Technical Officer should assist the Documentation Entomologist.

(iv) Inasmuch as the technical information required by the Directorate will be supplied by the Entomological Division of the I.A.R.I., it is not necessary to duplicate the set-up in the Directorate of Plant Protection, Quarantine and Storage. Instead of maintaining a hierarchy of Technical Assistants, Cataloguing Assistant, Junior Technical Assistants, there should be a non-technical section consisting of two Assistants and three Clerks with the Technical Officer as the Section Officer. The Section will collect the necessary information and transmit it to the State Governments. Further, as the duties of the Section will be mainly Ministerial, it is not necessary that it should be manned by a purely technical staff.

(v) For the maintenance of stores, there are at present two Caretaker Mechanics, one Bin Boy and two Cleaners. The Committee have no information about the extent of stores held and are, therefore, unable to make any recommendation with regard to them. They are, however, of opinion that stores for operational purposes should be stocked as near the field of operations as possible. They consider that Jodhpur by virtue of its proximity to desert areas is a better place for storage of equipment than New Delhi.

Division of Plant Diseases and Weed Control

37. There are in the Division one post of Deputy Director of Plant Diseases and one post of Assistant Systematic Mycologist. The post of the Deputy Director is borne on the special scale of pay applicable to the head of a Division (Rs. 1,000—1,400 plus a special pay of Rs. 150) in a Central Research Institute. The Committee are not aware of the circumstances in which the post of a Class I Officer in the scale of pay of the Head of the Division was created when there was already a Class I Officer in the special scale of pay in charge of the Mycology Division of the Indian Agricultural Research Institute. The functions of both these Officers are identical. The Committee find no justification for the existence of two posts with similar functions in the same Ministry and they, therefore, recommend that the functions of both the posts should be combined and there should be one Officer with a special scale of pay and that such an Officer should be the Head of the Division of Mycology in the Indian Agricultural Research Institute, New Delhi. There should be

a non-technical section in the Directorate under the charge of the Systematic Mycologist which will collect the required information on plant diseases and weeds from the I.A.R.I. and transmit the same to the State Governments. The staff of this section should consist of 2 Assistants, 1 Clerk and 1 Stenographer instead of 2 Technical Assistants, 2 Cataloguing Assistants and 3 Junior Technical Assistants.

In making this recommendation, the Committee are guided by the consideration that most of the State Governments have got their own experts in the fields of Mycology and Entomology. Such references as are received from the States should be dealt with, in the first instance, by the Entomologist and the Mycologist at the Headquarters Office, as the case may be, and in case they are not in a position to answer the queries of the State Governments, the cases should be referred to the Mycology or Entomology Experts of the I.A.R.I. for advice. In other words, there should be greater coordination and consultation with the Indian Agricultural Research Institute, New Delhi.

Division of Foreign Quarantine

38. Plant Quarantine work is of considerable importance. With rapidly developing means of communication and the increasing trade and commerce, the danger of introduction of foreign insect pests is very great. As a signatory to the International Plant Protection Convention, India has to take effective action to prevent introduction and spread of pests and diseases. The Committee understand that with a view to tighten preventive measures against entry of foreign pests, an up-to-date Plant Protection Station and Fumigatorium has been set up at the Port of Bombay.

The Division of Foreign Quarantine consists of Headquarters staff and Regional Offices at Madras and Bombay. There is also a proposal to open a quarantine station at Calcutta. The Committee are of the opinion that since bulk of the quarantine work is concentrated in the port of Bombay, the Headquarters of the Division should be located at Bombay. This will eliminate delay in correspondence with the Centre and also effect saving in the expenditure incurred on the tours undertaken by the Officers and staff attached to the Headquarters Office. In order that the Office at Bombay is able to take on-the-spot decisions, there should be an Officer of high status who should act as the Head of the Quarantine Office at Bombay and the Regional Offices at Madras and Calcutta. The Committee recommend that the Assistant Director (Quarantine) in the Division of Foreign Quarantine should be given charge of the Bombay Office. If this is done, the post of the Quarantine Entomologist at Bombay will be rendered superfluous and can, therefore, be abolished. With regard to consignments imported by air, the local Customs authorities should arrange for necessary inspection

with the assistance of the Quarantine staff stationed at Delhi, Bombay and Calcutta.

Administrative and Personnel Division

39. The Committee feel that if their suggestions contained in paras. 36 to 38 are accepted, there will be considerable diminution in the functions of the Administrative and Personnel Division inasmuch as they will have to deal with less number of staff. The Committee accordingly recommend that a review of the existing staff position at the Headquarters Office should be undertaken with a view to fixing the strength of the administrative personnel at the Headquarters.

LOCUST DIVISION

Introduction

40. Since 1939, the Government is maintaining a permanent Locust Warning Organisation whose functions are to keep a careful watch over the fluctuations in locust population and collect information from the various States and countries and disseminate the same to all concerned.

The Central Anti-Locust Organisation is responsible for intelligence and control work in the primary desert breeding areas whereas the State Organisations are directly responsible for such work in their cultivated areas. While the financial responsibility for the Locust Warning Organisation is entirely that of the Central Government, the expenditure on the control operations during the cycle period is shared amongst the beneficiary States. The shares of the respective States are fixed in proportion to the extent of their cultivated areas and their comparative vulnerability to locust attack.

Before partition of the country, the locust breeding desert area in the whole country was 5,00,000 square miles but after partition, the locust breeding desert area in India is now 80,770 square miles. During the locust invasion cycle of 1940—46, the Locust Warning Organisation was placed under the control of the Imperial Entomologist at New Delhi with a sub-station at Karachi. Now it is under the Director of Plant Protection, Quarantine and Storage with a sub-station at Jodhpur. Besides the Director of Plant Protection, Quarantine and Storage, the Locust Warning Organisation and the Anti-Locust Co-ordinated Scheme have 4 Class I Officers, 8 Class II Officers, about 400 Class III Officers and 175 Class IV staff.

Reorganisation of Office and Circles

41. The locust breeding desert area has been divided into three circles. Each circle has been sub-divided into zones and each zone has a certain number of locust outposts. The Central Circle with its Headquarters at Jodhpur has 6 zones and 41 outposts. The

Eastern Circle with its Headquarters at Bikaner has 4 zones and 32 outposts and the Western Circle with its Headquarters at Palampur has 2 zones and 14 outstations.

42. The administrative work of the Locust Division is at present concentrated at two Centres viz., New Delhi and Jodhpur. The Committee consider that the setting up of two Centres has resulted in duplication of staff and unnecessary increase in expenditure. Since practically all the administrative work as well as control work of the Locust Organisation is done at Jodhpur except for establishment matters which are dealt with at New Delhi, the Committee recommend that both the offices may be amalgamated at Jodhpur and the following staff (non-gazetted) at present engaged by the Locust Warning Organisation at New Delhi declared surplus:—

- 12 Assistants/U.D.C.
- 18 Clerks
- 2 Junior Technical Assistants
- 1 Head Draftsman
- 1 Draftsman
- 1 Stenographer
- 3 Daftries
- 1 Cleaner
- 4 Peons

The Director, Plant Protection may continue to work as Adviser and the post of one of his two Stenographers may be abolished as proposed above.

The Committee are of the opinion that owing to the smallness of the Western Circle and in view of the introduction of the recent Rail Link between Bhuj and Palampur, it is not necessary to continue it as a Circle. Bikaner Circle (Eastern Circle) is also very near to Jodhpur and with the well-equipped facility of wireless sets, its continuance as a separate Circle hardly seems necessary. The main work in the breeding desert area is that of survey, warning and killing of hoppers and locusts. This work can be very well supervised by the Officer-in-charge of a zone.

The duties and functions of a Zonal Officer are to organize and supervise the locust control work with the help of local Revenue Officers and form Anti-Locust Committees, to arrange supply and movement of equipment to various outposts and attend to accounts and stores of the zone. He has generally to do all the control work in collaboration with other Revenue Officers there. The Committee desire that there should be uniformity in making appointments to

all posts of Officers in charge of zones. They also consider that the Locust Technical Officer would be competent to discharge the duties assigned to these posts.

There are 6 posts of Locust Technical Officers, 2 posts of Locust Assistants, 9 posts of Locust Warning Officers, 35 posts of Assistant Locust Technical Officers and 84 posts of Junior Technical Officers. The Committee consider the number to be too many. They, therefore, recommend that the following staff would suffice for the entire organization:—

1. Locust Entomologist
2. Deputy Locust Entomologists
- 1 Transport Officer
- 1 Locust Technical Officer for each zone
- 12 Locust Warning Officers, one for each zone
- 87 Junior Technical Officers, one for each outpost.

There are 36 posts of Locust Mukaddams, 26 posts of Messengers and 3 posts of Assistant Mukaddams. The Committee also recommend that Mukaddams, Assistant Mukaddams or Messengers should be appointed for a certain number of months to help Officers in charge of zones or outstations during locust control operations. Mazdoors should be appointed in place of messengers as messengers are used only for cleaning machines and doing the work of orderlies.

Office Staff

As regards the Office Staff, the Committee recommend that the following reductions should be made:—

- 1 Office Supervisor.
- All Junior Technical Assistants to be replaced by Clerks.
2. Senior Store Keepers.
- 3 Store Keepers.

The Committee recommend that the number of Wireless Operators should be equal to the number of Wireless Stations and one extra Operator should be appointed to work in a leave vacancy.

Transport

43. At present there are 144 vehicles (Trucks, Jeeps and Land Rovers) and 5 Motor-Cycles with the Organization. The vehicles are required during the locust breeding season and anti-locust operations for fitting power-dusters and sprayers, tours and transporting labour to distant desert areas. The Committee consider that in view of the stationing of the Armed Forces at Jodhpur and Bikaner, efforts should be made to seek the aid of the Defence Ministry in the shape of loan of vehicles and army personnel to combat the

locust menace and, if this succeeds, a great deal of expenditure could be curtailed. The Ministry of Defence actually rendered such an assistance during the locust cycle of 1940—46 and it should be possible to obtain their assistance in future also. The locust menace should be treated on a war basis and combated by Civil as well as Defence Forces and, if this is done, the operations can be conducted expeditiously and economically.

Aerial Operations and T.C.A.

44. In 1952, aerial spraying against locusts was carried out during the months of July to October by three Piper Cubs piloted by the Americans under the T.C.A. in a gross area of 45,545 acres. Spraying training was also given to two Indian Pilots. The Committee understand that the cost of each plane is Rs. 25,000 and the average consumption of aviation spirit is 15 to 20 miles per gallon. The Committee are firmly of opinion that aeroplanes are an asset to the anti-locust Organizations, especially when breeding is on a large scale. The Committee desire that the Ministry of Defence should be approached for the loan of such planes and pilots. The Committee understand that provision was made in the budget for 1953-54 for the purchase of two Helicopters for anti-locust operations. The Committee suggest that a thorough investigation should be made before the Helicopters which are very costly are purchased, as to whether Piper Cubs would be more useful than Helicopters in view of the vastness of the desert area and the conditions obtaining there.

Expenditure on anti-locust operations by the Rajasthan Government

45. All operational work during the anti-locust operation period is done with the help of Revenue Authorities of the Rajasthan Government who appoint additional officers such as Tehsildars, Naib Tehsildars, Patwaris and labour. The money is advanced out of the Locust Warning Organization Fund lying with the Accountant-General, Rajasthan. Accounts have to be rendered by the State Government for such advances. But it is surprising that the Rajasthan authorities whose State with a total of more than 80 per cent. of the breeding desert area and locust affected area is the principal beneficiary under the co-ordinated anti-locust scheme have not yet fully rendered accounts for the sums drawn by them. A sum of Rs. 38,451-13-9 for the year 1950-51 and another sum of Rs. 58,728-0-6 for the year 1951-52 are still outstanding for settlement and rendering of accounts. The Committee recommend that action should be taken to have such accounts settled promptly and satisfactorily.

46. The Committee understand that the Locust Warning Organization spends nearly Rs. 1,000 per month on rent of office buildings. Since the Rajasthan Government is vitally concerned with the work

of the Organization and derive benefits from it, the Committee are of the opinion that this matter should be taken up at a high level with the Rajasthan Government so that no rent is charged for the office and store buildings belonging to that Government which have been rented to this Organization.

Methods of work and its nature

47. Every year, a conference of State Entomologists followed by a bigger conference of other State representatives is held at New Delhi to consider the locust problem of India. After that, a meeting of the Heads of Departments of the Rajasthan Government, the Director of Plant Protection, Quarantine and Storage and the two Locust Entomologists of the Locust Warning Organization takes place sometime in June every year. There are Divisional, District, Tehsil and Village Locust Committees consisting of Officers and other persons from amongst the public. The State Camel Sawars, Tehsildars, Naib Tehsildars, Patwaris in the desert area are entirely devoted to the locust control work during the active season. All the villagers generally co-operate with the authorities in digging trenches, dusting, spraying and killing of locusts and do this work without payment. But labourers have also to be employed for killing hoppers in areas far away from the cultivated areas. Insecticides, dusters and sprayers are supplied by the Organization free of cost to the villagers for the whole breeding desert. Two or more surveyors walk through an area disturbing the vegetation with a long stick in a 22 ft. wide patch and count the locusts observed by them. Both these processes are very simple and can be learnt easily.

It is clear, therefore, that the Locust Warning Organization has to seek the assistance of the cultivators and the villagers throughout the area when locust breeding starts for killing the hoppers and for the spraying and other purposes. The better the co-operation from the public, the more successful the operations against locusts. The Committee, therefore, feel that all possible steps should be taken to seek the assistance and co-operation of the people in this very vital work.

III

CENTRAL COLLEGE OF AGRICULTURE

Introduction

48. The Central College of Agriculture was started in Delhi in 1947 for providing facilities for theoretical and practical training in agriculture upto the graduation stage for students from Part "C" States and such other States as had no Agricultural Colleges. Originally the College was located in rented buildings at Anand Parbat but since 1951, the College has been integrated with the Indian Agricultural Research Institute, New Delhi in order to make a more effective use of the facilities available at the Institute and also to reduce expenditure. The College is recognised by the University of Delhi.

Expenditure

49. The details of expenditure incurred during 1947-48 to 1951-52 on the Central College of Agriculture are given below:

	Rs.
1947-48	2,46,172
1948-49	3,70,230
1949-50	4,51,993
1950-51	3,54,260
1951-52	1,93,773

The revised estimates for 1953-54 is Rs. 3,28,100 as per details below:

	Rs.
(i) Pay of Officers	53,300
(ii) Pay of Establishment	36,500
(iii) Other Charges	2,38,300

Staff

50. The College has the following staff:

Class II

11 Lecturers (6 permanent, 5 temporary in the scale of Rs. 275—800).

Class III

11 Demonstrators (Rs. 160—330).

1 Mechanic (Rs. 75—3—105).

- 1 Tractor and Truck Driver (Rs. 75—3—105).
- 1 P.T.I. (Rs. 68—170).
- 1 Head Clerk (Rs. 160—10—250—E.B.—10—300).
- 1 Carpenter (Rs. 60—75).
- 1 Librarian (Rs. 100—250).
- 1 Stenographer (Rs. 80—220).
- 1 Cashier (Rs. 55—130 plus Rs. 20 Special Pay).
- 2 Clerks (Rs. 55—130).
- 1 Blacksmith (Rs. 60—75).

The Head of the Division of Agronomy in the Institute is also the Principal of the College.

Defective set-up

51. With a view to making an on-the-spot study of the Central College of Agriculture, a special sub-Committee of this Committee visited the I.A.R.I. on the 15th, 16th and 17th January, 1953 and held discussions with the Director of the Institute, the Principal of the College, the students and the staff. As a result of this study the sub-Committee noticed certain unsatisfactory features about the College which are detailed below:

(i) The expenditure of the College has apparently come down to Rs. 2.23 lakhs in 1951-52 from Rs. 3.5 lakhs in 1950-51 as a result of its integration with the Institute. But this saving is illusory, inasmuch as every Division of the Institute has had to surrender staff and Laboratory facilities for teaching the students of the College. This has seriously hampered the research work in the various Divisions.

(ii) The College offers a three-year Degree course (after Intermediate). The old four-year Degree course (after Matriculation) enabled students of the rural communities to seek admission in the College. The present arrangement is largely responsible for attracting students from urban areas only.

(iii) There is no whole-time Principal and the present arrangement whereby the Head of the Division of Agronomy is also the Principal of the College is hardly satisfactory from the point of view of efficient management.

(iv) College atmosphere is completely missing, inasmuch as there is hardly any contact between the teachers and the taught except in lecture rooms. The bulk of the teaching staff, being research workers, have hardly any time or inclination to mix with the students to any great extent.

(v) Another serious defect in the present arrangement is that unlike State Agricultural Colleges where laboratories and lecture rooms are situated in the same building or nearabout, the Divisions of the I.A.R.I. are situated far apart from one another and so the students have to rush on cycles to different buildings at the end of every lecture or laboratory period.

(vi) The total number of students studying in the Third, Second and First Year Classes are 42, 43 and 37 respectively of whom only 23, 26 and 11 respectively actually belong to agriculturist families. This shows that the number of students likely to take to agriculture is diminishing.

(vii) The number of students from States other than Delhi is also dwindling. In the present First Year Class of 37, there are only 10 students from other States as per details given below:

Ajmer	2
Tripura	2
Coorg	1
Travancore-Cochin	3
West Bengal	1
Madhya Bharat	1

While the Third Year Class had as many as 21 students from States other than Delhi, this number has dwindled down to 10 during the last two years. It is clear that the College caters largely, if not wholly, for students from Delhi State.

Training

52. The Committee are convinced that the nature of training imparted at the Central College of Agriculture cannot for more reasons than one be beneficial to the students.

(i) The College had been started primarily for the benefit of students coming from far off tracts of India like Assam, Coorg, Central India, West Bengal and Tripura which did not possess agricultural colleges of their own (Assam and West Bengal have their own Colleges now). It is obvious that the Central College cannot render effective practical training to students hailing from different tracts with different climatic, soil and irrigation conditions. Agriculture is a subject which is best taught in relation to the soil and climate of each particular region. To attempt to impart an omnibus knowledge about the agricultural practices prevalent in the various parts of the country is an impossibility. There can be no two opinions that agricultural training upto the B.Sc. (Agri.) Degree can best be imparted in the local or adjoining State Agricultural Colleges.

(ii) The training at the College being more or less theoretical (practical training being possible only in relation to local conditions)

the College would be turning out graduates equipped with theoretical knowledge only, whose main ambition would be to secure jobs. Being devoid of practical experience the utility of such Graduates either in the field or in offices is extremely limited. These Graduates will only serve to add to the army of the un-employed for neither can Delhi State Agriculture Department provide jobs for them nor will there be any scope for their absorption in other States.

Central College not justified

53. The Committee are of the opinion that the Central College of Agriculture, constituted as it is, does not meet the real needs of the students and is also impeding the progress of research at the Indian Agricultural Research Institute, New Delhi. Since the establishment of a separate institution independent of the I.A.R.I. is also not possible on account of the huge capital expenditure involved, it is necessary to evolve some formulae whereby the difficulties experienced by Part 'C' and other States not having Agricultural Colleges are resolved and the research work of the I.A.R.I. is also not adversely affected.

The Committee suggest that arrangement should be made for the admission of the students from States having no Agricultural Colleges of their own, in the Agricultural Colleges of adjoining States. A student from Delhi should receive his training in one of the Agricultural Colleges of U.P. or the Punjab. A student from Coorg should go to Mysore or Madras State College for training in agriculture. The Committee think that it should not be difficult for the State Agricultural Colleges to provide a few more seats for students of adjoining centrally administered territories. If necessary, a certain amount of grant per student may be paid by the States nominating their candidates or by the Central Government. Such an arrangement will be less expensive and more advantageous.

54. Whatever justification there might have been at the time when the College was started, its continuance cannot be justified now for the reasons stated above. The Committee, therefore, recommend that Government should take action for the early closure of the Central College of Agriculture and make alternative arrangements for the training of students of Part 'C' and other States having no Agricultural Colleges of their own. If it is not feasible to close down the Institution forthwith, further admissions should be stopped and the College closed down by stages. Such of the staff of the College which may become surplus as a result of closure of the College, should be absorbed in the I.A.R.I. and other Research Institutes under the Central Government. The hostel accommodation at present occupied by the students of the Central College may be utilised by the Post-Graduate students.

IV

CENTRAL POTATO RESEARCH INSTITUTE, PATNA

Introduction

55. The work on potato improvement was first started in 1935 at Simla under a scheme financed by the Indian Council of Agricultural Research. Later, the activities were expanded by adding to it research sub-stations at Bhowali (U.P.) and Kufri (Himachal Pradesh). The Governing Body of the Indian Council of Agricultural Research at its meetings held in August, 1945, recommended the setting up of the Central Potato Research Institute which was finally approved by the Standing Finance Committee. The Institute was established in May, 1949, on land and accommodation for Offices given by the Government of Bihar. The Central Potato Research Institute at present consists of the main Institute at Patna and three sub-stations situated in the hills of North India, (i) Potato Breeding sub-station, Simla, (ii) Potato Certification sub-station, Kufri and (iii) Potato multiplication sub-station, Bhowali. There are four sections in the main Institute, namely, Botany, Agronomy, Plant Pathology and Entomology.

Functions

56. The work at the main Institute includes (i) breeding improved varieties of potato, (ii) the agronomic research for reaching optimum standards of cultivation and manuring (iii) investigations and control of various diseases and pests (iv) evolving suitable methods of storage and (v) multiplication of nucleus stocks of seeds of improved varieties for distribution to the States for further multiplication and distribution by them to the cultivators. The Station has already evolved a number of early varieties as also other varieties suitable for various regions like the plains and hilly tracts of Northern and Southern India and Chotanagpur Plateau. Experiments are also in progress for growing potatoes from true seed and also from the sprouts of potatoes with a view to cut down expenditure on potato seed. Agronomic investigations on manurial requirements have given some interesting results as also the cultural experiments and storage studies. Some useful work is being done on the control of various insect pests and diseases including various diseases. As a part of the Five Year Plan it is proposed to establish 26 regional centres, spread over the potato growing States, with a view to try

new and improved varieties at different centres and to multiply the seed of the selected varieties, disease-free. Out of these, ten centres in the plains and hilly areas were started during last year and the remaining centres are expected to be started in the current and next year.

(a) *Potato Breeding Sub-Station, Simla*: This station situated at 6,200 feet elevation, is meant for work which cannot be carried out in the plains *i.e.*, breeding improved varieties and investigations on virus disease with particular reference to production of disease-free seeds and maintenance of the breeding potentialities of the large collection of genetic stocks from all over the world. This sub-station is in charge of a Class I Botanist, assisted by two Class II Officers and four Research Assistants.

(b) *Potato Certification Sub-Station, Kufri*: This is situated at an elevation of 8,500 feet and serves a special function, *i.e.*, multiplication of improved varieties in a disease-free state, conditions in this sub-station being least favourable for the spread of virus disease. This sub-station is in charge of a Class II Assistant Botanist, assisted by one Research Assistant.

(c) *Potato Multiplication Sub-Station, Bhowali*: This is situated at an elevation of 5,000 feet and has also a special function to perform. It is a "bridging station" between the hills and the plains as freshly harvested tubers cannot be immediately planted in the plains because they require a period of rest known as "dormacy" for about three months before they can be planted as seed. The work in the sub-station includes multiplication of disease-free seed for supply of non-dormant tubers to the plains, testing varieties for the mid-hills and investigation and control of some fungal and bacterial diseases which are particularly severe in this region. This sub-station is in charge of Class II Officer (Assistant Botanist) assisted by one Research Assistant.

The main Institute apart from research, as referred to above, carries out also advisory work about all aspects of potato improvement. It is also proposed to start practical training classes of short duration for farmers and village level workers on potato cultivation.

Estimates

57. In the revised estimates for 1953-54, provision was made for a revenue expenditure of Rs. 2,86,000. This is made up as under:

	Rs.
Pay of Officers	61,200
Pay of Establishment	71,800
Other Charges	1,53,000

Under Capital Outlay, a sum of Rs. 77,222 was provided for constructional work at Patna and the sub-stations at Simla and Kufri.

Recommendations

58. (i) A sub-Committee of this Committee visited the Central Potato Research Institute, Patna, in June 1952 for an on-the-spot study of the problems. The sub-Committee considered and this Committee agree with their views that a Potato Farm on commercial lines should be started in the neighbourhood of the Institute with a view to producing seed of improved varieties evolved at the Institute. A commercial farm, run purely on business lines, would supply not only the much-needed seed but would also be a source of income to the Institute. The Committee recommend that 1,000 acres of land be taken over from the Defence Ministry and the work of multiplication of seed started forthwith.

(ii) The Office of the Central Potato Research Institute is situated in the town near the Secretariat at a distance of about 2½ miles from the Farm and laboratories. Considerable time of the staff is wasted in journeys between the Farm and the Office. In the interest of efficiency, it is necessary that the Office should be shifted to the Farm premises.

(iii) There are no residential quarters for the subordinate staff with the result that they have to pay as much as 20 to 25 per cent. of their pay as rent for private houses. This is highly unsatisfactory. The Committee recommend that residential accommodation for non-gazetted staff should be provided at reasonable rents without delay.

(iv) The staff of the Institute is temporary as the Institute has not been placed on a permanent footing. The temporary nature of service of the staff may not be conducive to the efficient working and the Research Staff are always on the look-out for a permanent job. The Committee recommend that an early decision as to the future of the Institute may be taken.

V GENERAL

59. The Ministry of Food and Agriculture have under their control a number of Research Institutes which they administer either directly or through the various Commodity Committees. The Committee have not had the time to examine the working of the Research Stations attached to the Commodity Committees but they studied the organisational set-up and functions of the Central Institutes, viz., the Indian Agricultural Research Institute, New Delhi, the Indian Veterinary Research Institute, Izatnagar/Mukteswar, the Indian Dairy Research Institute, Bangalore, the Central Potato Research Institute, Patna, the Central Rice Research Institute, Cuttack, the Indian Forest Research Institute and Colleges, Dehra Dun and the Fisheries Research Institutes. With a view to acquaint themselves fully with the problems of the Institutes, the Committee appointed a sub-Committee which undertook visits to the various Research Institutes, held discussions with the Directors and staff and obtained a first-hand knowledge of their working. The Committee feel that the organisation for research has to be reoriented to meet the growing needs of the country. Some of the possible lines of reorganisation are indicated below.

Research Officers vis-a-vis Administrative Officers

60. There is a great disparity in the scales of pay of research workers and administrative officers working in other Government Departments. The Director of a Research Institute who has not only to direct and guide the activities of the Institute but also to do independent research work starts on a salary of Rs. 1,600/-* The Heads of Research Institutes are generally persons of high technical qualifications and international reputation and the country expects the very best from them. In order that persons of talent are attracted towards the Research Institutes, the emoluments and terms of service of each category of scientific personnel should be so fixed that they compare favourably with those admissible to Officers of equivalent status elsewhere. In the course of the examination of the working of the Research Institutes, the Committee noticed that the entire staff of one Institute was temporary even though they had put in service for a number of years. The Committee feel that the status, terms and conditions of service of Research Officers and staff should be settled early on a satisfactory footing from the point of view of getting the maximum benefit from their research work.

*Rs. 1,300-60-1,600 in the case of smaller Institutes.

All-India Service for Research Workers

61. The Committee observe that there is a great difference between the scales of pay of the research staff of the State Institutes and those of the Central Research Institutes. Differences in the scales of pay are also noticeable in the case of research staff employed in the various Central Research Stations maintained by the Central Government even though they are all engaged in similar types of work and possess more or less identical qualifications. This artificial distinction is not conducive to efficient working of the Research Institutes and there are cases where experienced staff left their jobs to take up higher posts elsewhere. The Committee recommend that Government should consider the feasibility of introducing an All-India Service for Agricultural Research Workers so that the services of the research staff could be utilised at such places and for such work as they are most suited.

Age of Superannuation

62. In India the age of retirement of Research Workers is 55, whereas in the Western countries a Research Worker, if his health permits, is allowed to continue up to the age of 70 years or more. The Committee consider that qualified Research Workers are an asset to an Institution and the country can ill-afford to lose their services prematurely. The Committee recommend that in India, Agricultural Research Workers should not be made to retire at the age of 55 but allowed to continue up to the age of 60 provided they continue to retain efficiency and are declared medically fit. Distinguished Research Workers, even after their retirement, should be allowed all facilities to retain their connection with the Institute and continue their research.

Creation of a Fund for Award of Prizes

63. In order to stimulate healthy competition among research workers and to give an incentive to them, the Committee recommend the setting up of a fund out of which rewards or prizes should be awarded to research workers for singular achievements or important processes discovered.

Cess on Commodities

64. The Committee consider that the funds that are being provided for agricultural research are far from adequate. In order that research work is not unduly handicapped for lack of funds, the Committee suggest that the possibility of levying cess on commodities should be fully explored. In their Report on the Indian Forest College and Research Institute (Chapter II of the Sixth Report), the Committee have already recommended the levy of a cess on forest products.

Visit by Leading Agriculturists

65. In order that the country as a whole may derive maximum benefits from the results obtained in Central Research Institutes, the Committee suggest that leading agriculturists from all States should be encouraged to visit Central Research Institutes. To facilitate travelling, assistance in the form of concession in railway fares, provision of board and lodging and transport by the Central and State Governments should be considered. These facilities should also be extended to *bona fide* Agricultural Graduates and Research Workers.

Extension Centres

66. While the Central Research Stations are doing much valuable work, the Committee feel that results of research are not being translated in the fields to the desired extent. The Committee suggest that each Central Research Station should also serve as an extension centre. It should be the duty of the Research Officers of the Station to periodically go to the villages in order to acquaint the cultivators with the results of researches done in the Station. By personal contact, the Officers will also be able to appreciate the problems and difficulties of the cultivators.

Patents

67. In regard to the patents for discoveries or inventions made as a result of researches, there seems to be considerable confusion at present inasmuch as patents are sometimes taken in the name of the individual Research Officer and sometimes in the name of the Institute. The Committee recommend that patents should always be in the name of the Institute and that the person responsible for discoveries or invention should get full recognition and suitable rewards in the form of prizes or compensation. In the event of a royalty being fixed he should also participate in the benefit of the same to some extent. The Committee also suggest that a Board should be set up within the Ministry for (i) assessing the value of discoveries or inventions, (ii) examining the justifiability or otherwise of patents for results of researches, (iii) determining the scope for utilisation of the same for commercial exploitation, and (iv) apportioning the credit due to worker or workers responsible for the same. The Committee think that the constitution of such a Board is necessary because complaints are generally made that credit in some cases is largely taken by the Head of the Section although a great deal of work is done by others.

Coordination of Agricultural Research

68. The Committee desire to draw the attention of Government to the present unsatisfactory state of agricultural research. There are four different kinds of agencies concerned with research. First,

there is the Indian Council of Agricultural Research which was set up in 1929 following the recommendation of the Royal Commission on Agriculture for initiating, organising and coordinating research on scientific lines; secondly, there are Central Commodity Committees with their own research stations and laboratories performing similar functions in respect of different commodities; thirdly, there are Central Research Institutes like the Indian Agricultural Research Institute, New Delhi, Rice Research Institute, Cuttack, and Potato Research Institute, Patna, and fourthly, there are Agricultural Institutes attached to the State Departments of Agriculture. The multiplicity of research institutions has led to unplanned expansion of activities and has made coordination extremely difficult. Moreover, the autonomous character of the different agencies has resulted in duplication of administrative and technical personnel. The country is not thus receiving the full value of money spent on agricultural research. India has embarked on a vast programme of agricultural development as envisaged in the Five Year Plan and the Committee think that the time is most opportune for re-orientation of the existing machinery so that a coordinated programme of research could be evolved in each sphere for the whole country and the work in different spheres divided between the Central, State or the University Research Institutes.

Although I.C.A.R. as the premier organisation will strive to achieve coordination in the activities of the various organisations under the Centre and the States and will ensure that duplication of research is avoided, the I.A.R.I. as the oldest and the biggest Agricultural Research Institute has also an important part to play. Manned as it is by experts in all branches of agricultural science and equipped as it is with modern laboratories, I.A.R.I. is capable of rendering expert advice not only to the Central Institutes but also to the State Agricultural Institutes. The Committee feel that maximum benefits are not being derived from the Institute at present. The State Research Institutes are not receiving much guidance from the I.A.R.I. In order that the facilities available at the Institute are utilised to the fullest possible extent, the Committee make the following suggestion:

(i) There should be greater intake of Post-Graduate students for training in different branches of agricultural science in the I.A.R.I. At present fifty students are admitted every year for advanced training and are awarded, after the completion of a two-year course, the Associateship of the I.A.R.I. which is recognised by the Government of India, the Union Public Service Commission, some of the States, and State Public Service Commissions, as an alternative qualification to the M.Sc. (Agri.) Degree of Indian Universities for recruitment to posts. which require special training in the subjects co-

vered by the Associateship diploma of the Institute. Most of the students are nominees of State Governments but a few deserving private candidates are also admitted. The Committee think that for a country of the size of India the training of 50 students per annum is utterly inadequate. With the existing laboratory facilities at the Institute, it should be possible to increase the number of trainees to as many as 200. After the closure of the Central College of Agriculture (as recommended in Para. 54 of Chapter III of this report), additional accommodation will be available and the number of trainees can be further increased. The Committee feel that the training of a large number of Post-Graduate students will have a wholesome effect on the standard and quality of research in the States inasmuch as the trainees after the completion of their course at I.A.R.I. will return to their States after imbibing the latest technique of Agricultural Research.

(ii) I.A.R.I. should carry on fundamental research and research on complicated problems, or problems of all-India importance which no single State can perform due either to lack of finance or non-availability of trained and technical personnel. Problems of local nature and experiments of routine character should be excluded from the purview of the Institute. These functions can best be taken over by the State Research Stations.

(iii) In order that I.A.R.I. is able to play its part as a premier Research Institute in the country, it should give technical guidance to the State Research Institutes so that research is conducted on scientific lines and in a planned manner. Arrangements should be made for effecting coordination and contact between the research staff of I.A.R.I. and the Research Institutions in the various States including the Universities.

(iv) I.A.R.I. should be entrusted with the work of collection and compilation of results of researches carried out in the different parts of the country. In order that a full picture of the work being done at different places is obtainable, the Institute should prepare every year a comprehensive brochure in collaboration with I.C.A.R. which should contain both the financial and economic aspects of the schemes or experiments undertaken.

(v) There should be periodical conference between I.A.R.I. and State Agricultural Research Institutes for discussion of annual programmes and achievements and other matters of mutual interest.

Periodical Achievement Audit

69. The Committee recommend that a periodical achievement audit—say every three years in the case of agricultural research institutes—should be undertaken with a view to assessing the actual achievements of practical utility to the credit of the Institutes.

APPENDIX

Statement showing the summary of the conclusions/recommendations of the Estimates Committee relating to the Ministry of Food and Agriculture

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
CENTRAL TRACTOR ORGANISATION (LAND RECLAMATION)		
1	9	The Committee consider that the Bhopal Workshop should undertake servicing of two more units of tractors which were hitherto serviced at the Delhi Workshop.
2	10	In view of the transference of overhauling work to Bhopal workshop, the Delhi workshop whose other function is to manufacture a few spare parts and rehabilitate the Pashabhai implements should not be continued, unless new work is found in the nature of manufacture of light tractors, agricultural implements and their spare parts.
3	11	The Survey of India should undertake an immediate survey of further kans-infested land in the four States of Bhopal, Madhya Pradesh, Madhya Bharat and U.P., in order to minimise loss of tractor-hours on account of non-availability of plots of land of the optimum size and the attendant expenditure on establishment.
4	12	The posts of Assistant, Executive and Superintending Engineers in the Bhopal establishment can be reduced, as the servicing and repairs can very well be attended to by the Foreman.
5	13	In the opinion of the Committee it will be unfair to be indifferent to the mounting cost merely because it is recoverable from the cultivators.
6	14	Energetic steps should be taken to prevent the occurrence of losses in tractor-hours in future.
7	15	The Committee consider that if the States are allowed to have a hand in the management, the work of reclamation can be carried out more efficiently and at less cost by a reduction in overheads and in the expenditure on account of travelling allowances, etc. A Corporation may be formed consisting of the representatives of the State Governments concerned and a few representatives of the Centre charged with the management of the Bhopal Workshop along with the tractors and should be run on commercial lines. After completion of the present work in Central India the tractors may be diverted to other areas, if the schemes sponsored by the interested States are feasible and the blocks of the optimum size are available.

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
8	17	<p>The Committee deprecate the lack of planning and foresight in the purchase of stores, especially in the purchase of unsuitable and uneconomic diesel trucks. Government should take steps to fix the responsibility for the resultant losses and take suitable action against the Officers found guilty of irregularity.</p> <p>The Committee consider that some serious action is called for against the officials responsible for the heavy losses which have resulted from the imprudent policy in the matter of purchase of tractors, stores and surplus spare parts, etc.</p>
9	18	<p>To ensure that purchases in future are made on a planned and rational basis, it is imperative that a long term purchase policy is adopted and the placing of <i>ad hoc</i> indents discontinued. The indenting of spare parts should be carefully planned and phased and before placing orders, they should be scrutinised by a Committee consisting of a Senior Agricultural Engineer, the Financial Adviser and one representative each from the Ministry of Food and Agriculture and the Directorate General of Supplies and Disposals.</p>
10	20	<p>The Committee are of the view that Government should follow a policy of standardisation of tractors and judicious purchase of accessories, ensuring balanced supply of spare parts.</p>
11	21	<p>The Committee feel that follow-up cultivation is the responsibility of the individual farmers and the State Governments. The State Governments should ensure that kans reinfestation is prevented by deeper ploughing with medium tractors every four years, lest the work of reclamation done by the C.T.O. should be largely wasted and lost.</p>
12	22	<p>In view of greater yield from fallow lands than from lands originally cultivated but subsequently infested and reclaimed, the C.T.O. should concentrate more on the former. An accurate assessment of the increase in food production as a result of the activities of the C.T.O. should be undertaken by the National Sample Survey.</p>
13	23	<p>An accurate assessment of the costs of reclamation should be undertaken, sparing no effort to keep down the charges at least at the existing levels.</p> <p>The Committee recommend that the Government should institute an enquiry to find out how the losses due to increase in cost of reclamation came about and who were responsible for these losses and after enquiry has been made and responsibilities fixed, suitable action should be taken. This Committee should be charged with the task of making recommendations for the reduction of the various elements which have contributed to the computation</p>

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		of the figure of Rs. 52/- per acre. The Committee are not satisfied with the reasons for the losses given by the Zaidi Committee. They consider that a further enquiry in this matter should be made and the findings of that Committee should be placed before them for consideration in due course.
14	24	Orders were placed and are being placed haphazardly and a large quantity of stores including spares were accepted without any scrutiny. The Committee deprecate the indiscriminate purchase of stores and equipment and urge upon the Government the necessity of bringing the defaulting officials to book. Government should also take steps to enquire into the circumstances in which such haphazard purchases of stores and spares were made. A small Committee including an expert Cost Accountant should be asked to undertake an accurate assessment of the value of the tractors and all other equipment and stores at present in the possession of the C.T.O.
15	26	(i) Early steps should be taken to declare the outstanding surpluses to the Directorate-General of Supplies and Disposals. In disposing of the surplus goods, a positive policy should be adopted. Efforts should be made to return such of the spare parts and allied equipment as are not required through the manufacturers' agents in India and such spares as are needed most may be obtained in exchange. The disposal of unwanted, unusable and unexchangeable surplus stores etc. should be expedited. (ii) An officer of the D. G. S. & D. should be asked to undertake an evaluation of all the surplus stores lying with the C.T.O. Government should further explore the feasibility of reverting to the earlier practice of allowing the C.T.O. to dispose of its surplus goods without the intervention of the D.G. S. & D. if such a step should prove efficient and conducive to speedy disposal.
16	27	C.T.O. should not proceed with the wholesale rehabilitation of the Pashabhai implements until the utility of the rehabilitated implements is established and State Govts. place firm orders. A limited number of ploughs may be rehabilitated and sent to the States for trial; and the remaining ploughs should be rehabilitated only if the States place firm orders for the same
17	28	Government should take immediate steps to examine the reason for the increase in reclamation costs and the propriety of having raised additional debits against the States. Early steps should be taken to realise the outstanding dues from the States.

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
18	29	The total amount of loss suffered by the C.T.O. should be worked out after action to dispose of all surplus stores is taken and the State Governments acknowledge their liability amounting to Rs 5.16 crores and the question of allocating the loss on <i>pro rata</i> basis or for writing off the losses may then be considered.
19	30	<p>The Committee recommend the adoption of the following measure which will go a long way to tone up the efficiency and economy in carrying out the reclamation and clearance operations in this country:—</p> <p>(i) With the setting up of the Corporation as proposed by the Committee, the field supervisory staff should be considerably reduced and new scales of pay similar to those obtaining in the States introduced.</p> <p>(ii) A thorough pruning of the existing headquarters staff should be undertaken and on the basis of the minimum requirements of the staff, the surplus posts should be abolished.</p> <p>(iii) An Advisory Committee should be constituted for scrutinising tenders for fresh stocks of spare-parts and equipment.</p> <p>(iv) The Delhi Workshop should be utilised for the purpose of manufacturing light tractors and agricultural implements and spare parts and till such time that the workshop is able to undertake this work, it may be temporarily shut down and only a skeleton staff need be retained.</p> <p>(v) The Workshop at Bhopal should also be utilised for cannibalising some of the tractors by using the spares available. It may be mentioned in this connection that the Finance Ministry were not in favour of this suggestion. If this is true, the Committee would urge upon the Ministry of Finance to reconsider their decision.</p>
20	31(iii)	<p>The Committee feel that—</p> <p>(a) Government may appoint Departmental Committees consisting of Government officials on matters under examination of the Estimates Committee but their Reports should not be published without the concurrence of the Estimates Committee ;</p> <p>(b) the matters referred to such Departmental Committees should normally relate to technical subjects;</p> <p>(c) whenever Government propose to appoint a Committee consisting wholly or partly of non-officials including Members of Parliament, the Chairman of the Estimates Committee should invariably be consulted in advance as to the constitution of such a Committee.</p>

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		In future this course should be adopted by all Ministries of the Government of India uniformly. In case a doubt arises in any particular matter, the guidance of the Speaker should be obtained.
31(vii)		The Committee have no objection to the publication of the Zaidi Committee Report in such manner and at such time as Government may think fit to do so.
DIRECTORATE OF PLANT PROTECTION, QUARANTINE AND STORAGE		
21	36	The Committee are convinced that there is considerable overlap of functions resulting in duplication of staff in the Division of Entomology. The Committee desire that the Directorate should function in close liaison with the Entomology Division of the I.A.R.I. in so far as the collection of data on pests and diseases is concerned. The work of the Division relating to storage should be transferred to the Directorate of Storage.
22	36(i)	The post of Storage Entomologist should be combined with that of the Director of Storage and Inspection.
23	36(ii)	There should be only one Entomologist (Class II) who will act as liaison between the Plant Protection Directorate and the Directorate of Storage and Inspection on the one hand and the I.A.R.I. on the other.
24	36(iii)	Out of the two posts of Technical Officers one should be abolished and the other Technical Officer should assist the Documentation Entomologist.
25	36(iv)	Instead of maintaining a hierarchy of Technical Asstts., Cataloguing Asstt., Junior Technical Asstt., there should be a non-technical section consisting of two Asstts., and three clerks with the Technical Officer as the Section Officer. The Section will collect the necessary information and transmit them to the State Governments.
26	36(v)	Stores for operational purposes should be stocked as near the field of operations as possible. The Committee consider that Jodhpur by virtue of its proximity to desert area is a better place for storage of equipment than New Delhi.
27	37	There should be one officer with a special scale of pay who should be the Head of the Division of Mycology in the I.A.R.I. New Delhi. (ii) There should be a non-technical section in the Directorate under the charge of the Systematic Mycologist which will collect the required information on plant diseases and weeds from the I.A.R.I. and transmit them to State Governments.

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		(iii) The staff should consist of 2 Assistants, 1 Clerk and 1 Stenographer.
28	38	Since bulk of the quarantine work is concentrated in the port of Bombay, the Headquarters of the Division should be located at Bombay.
		(ii) There should be an officer of high status who should act as the Head of the Quarantine Office at Bombay and the Regional Offices at Calcutta and Madras.
		(iii) The Committee recommend that the Assistant Director (Quarantine) in the Division of Foreign Quarantine should be given charge of the Bombay Office and thus the post of Quarantine Entomologist abolished at Bombay.
		(iv) Local customs authorities should arrange for necessary inspection with the assistance of the Quarantine staff of the consignments imported by air.
29	39	A review of the existing staff position at the Headquarters Office should be undertaken with a view to fixing strength of the administrative personnel at the Headquarters.
30	42	The Committee consider that the setting up of two Centres of the Locust Division at New Delhi and Jodhpur has resulted in duplication of staff and unnecessary increase in expenditure.
		The Committee recommend that both the offices may be amalgamated at Jodhpur and the following staff in the Locust Warning Organisation at New Delhi declared as surplus :
		12 Assistants/U.D.C., 18 Clerks, 2 Junior Technical Assistants, 1 Head Draftsman, 1 Draftsman, 1 Stenographer, 3 Daftries, 1 Cleaner, 4 Peons.
		Consequent on the Director, Plant Protection continuing to work as Adviser, the post of one of his two Stenographers may be abolished.
		(ii) It is not necessary to continue the Western Circle.
		The continuance of the Bikaner Circle (Eastern Circle) hardly seems necessary in view of its being situated very near to Jodhpur
		(iii) The Committee desire that there should be uniformity in making appointments to all posts of Officers in charge of zones. They also consider that the Locust Technical Officer would be competent to discharge the duties assigned to these posts.

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		<p>(iv) The number of Technical Officers is too many. The Committee, therefore, recommend that the following staff should suffice for the entire organization :</p> <p>1 Locust Entomologist, 2 Deputy Locust Entomologists, 1 Transport Officer, 1 Locust Technical Officer for each zone, 12 Locust Warning Officers, 87 Junior Technical Officers.</p> <p>(v) The Mukkaddams, Asstt. Mukaddams or Messengers should be appointed for a certain number of months to help officers in charge of zones or outstations during locust control operations. Mazdoors should be appointed in place of messengers.</p> <p>(vi) The following reductions should be made in the staff 1 Office Supervisor, All Junior Technical Officers to be replaced by clerks, 2 Senior Store Keepers and 3 Store Keepers.</p> <p>(vii) The number of Wireless Operators should be equal to the number of wireless stations and one extra Operator should be appointed to work in a leave vacancy.</p>
31	43	Efforts should be made to seek the aid of the Defence Ministry in the shape of loan of vehicles and army personnel to combat the locust menace.
32	44	<p>The Committee are firmly of opinion that aeroplanes are an asset to the anti locust organizations and, therefore, desire that the Ministry of Defence should be approached for the loan of such planes and pilots.</p> <p>(ii) A thorough investigation should be made before Helicopters are purchased, as to whether Piper Cubs would be more useful than Helicopters.</p>
33	45	The Committee recommend that action should be taken to have the accounts which are outstanding against the Rajasthan Government settled promptly and satisfactorily.
34	46	The Committee are of the opinion that the question of rent for the office buildings should be taken up at high level so that no rent is charged for the office and store buildings belonging to the Rajasthan Government as they are virtually benefited from the working of the Locust Organisation.
35	47	All possible steps should be taken to seek the assistance and co-operation of the local population in the locust killing operations.

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
------------	--------------------------------------	--

CENTRAL COLLEGE OF AGRICULTURE

36	51	<p>(i) As a result of the integration of the College with I.A.R.I., every Division of the Institute had to surrender staff and laboratory facilities for teaching the students of the College thus seriously hampering the research work in the various Divisions.</p> <p>(ii) The old four-year degree course (after Matriculation) enabled students of the rural communities to seek admission in the College. The present arrangements are largely responsible for attracting students from urban areas only which the Committee consider unsatisfactory.</p> <p>(iii) There is no whole time Principal of the College and this is hardly satisfactory from the point of view of efficient management.</p> <p>(iv) College atmosphere is completely missing as the bulk of the teaching staff being research workers have hardly any time or inclination to mix with students to any great extent. This is not satisfactory.</p> <p>(v) The laboratories and lecture rooms are situated far apart from one another. The Committee feel that this results in much inconvenience to the students who have to rush about after each class.</p> <p>(vi) The number of students belonging to agricultural families is diminishing which means that lesser number of students are likely to take to Agriculture. The Committee consider that trend to be discouraging.</p> <p>(vii) The number of students from States other than Delhi is dwindling but the Committee consider that the main idea of the College was to give opportunities to students from other States.</p>
37	52	<p>The Committee feel that Agriculture is a subject which can best be taught in relation to the soil and climate of each particular region. They, therefore, consider that agricultural training upto the B.Sc. (Agri.) Degree can best be imparted in the local or adjoining State Agricultural Colleges.</p> <p>The training at the College being more or less theoretical (practical training being possible only in relation to local conditions there is no scope for absorbing the Graduates from the College.</p>
38	53	<p>The Committee consider that the College as it is constituted does not meet the real needs of the students and is impeding the progress of research work at the I.A.R.I. The Committee, therefore, recommend that some formulae should be evolved</p>

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		<p>whereby the difficulties experienced by Part ' C ' States not having Agricultural Colleges are resolved and research work of the I.A.R.I. not affected adversely.</p> <p>Arrangement should be made for admission of students from States having no Agricultural Colleges of their own in the Agricultural Colleges of adjoining States.</p> <p>A few more seats may be provided by the State Agricultural Colleges for students from the adjoining States and, if necessary, a certain amount of grant per student may be given by the States nominating their candidates or by the Central Government.</p>
39	54	<p>Government should take early action for the closure of the College and make alternative arrangements for the training of students from Part ' C ' and other States not having Agricultural Colleges of their own. If it is not possible to close it down at once, further admission should be stopped and the College closed gradually by stages. Such of the staff as become surplus should be absorbed in the I.A.R.I. and other Research Institutes under the Central Government. The hostel accommodation at present occupied by the students may be utilised by the Post-Graduate students</p>
		<p>CENTRAL POTATO RESEARCH INSTITUTE, PATNA</p>
40	58	<p>A Potato Farm on commercial lines should be started in the neighbourhood of the Institute with a view to producing seed of improved varieties and to serve as a source of income and 1,000 acres of land may be taken over for this purpose from the Defence Ministry.</p> <p>The Committee consider that the Office should be shifted from its present site to the Farm premises in the interest of efficiency.</p> <p>Residential accommodation for the non-gazetted staff should be provided at reasonable rents.</p> <p>The establishment of the Institute has not been placed on a permanent footing. The Committee feel that this is not conducive to the efficient working of the staff and recommend that early decision should be taken as to the future of the Institute.</p>
		<p>GENERAL</p>
41	60	<p>The Committee recommend that the emoluments and terms of service of each category of scientific personnel should be so fixed that they compare favourably with those admissi leto Officers of equivalent status elsewhere.</p>

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		The Committee suggest that the status, terms and conditions of service of Research Officers and staff should be settled early on a satisfactory footing from the point of view of getting the maximum benefit from their research work.
42	61	Government should consider the feasibility of introducing an All India Service for Agricultural Research Workers so that the services of the research staff could be utilised properly.
43	62	Agricultural Research Workers should be allowed to continue in service up to the age of 60 provided they continue to retain efficiency and are declared medically fit. Distinguished Research Workers, even after their retirement, should be allowed all research facilities in the Institute and retain their connection with it.
44	63	A fund should be set up out of which rewards or prizes should be awarded to Research Workers for singular achievements or important processes discovered by them.
45	64	Funds provided for agricultural research are not adequate. Possibility of levying cess on commodities should be fully explored.
46	65	Leading agriculturists from all States should be encouraged to visit Central Research Institutes. Facilities in the form of concessional railway tickets, provision of board and lodging and transport by the Central and State Governments should be considered. Similar facilities should also be extended to <i>bona fide</i> Agricultural Graduates and Research Workers.
47	66	Each Central Research Station should also serve as an extension Centre. The Research Officers of the Station should go periodically to the villages in order to acquaint the cultivators with the results of researches done in the Station. By personal contacts, the problems and difficulties of the cultivators should be appreciated.
48	67	Patents should always be in the name of the Institute and the person responsible for discoveries and inventions should get full recognition and suitable rewards and prizes or compensation should be given to him. In the event of royalties being fixed, he should also participate in the benefit of the same to some extent. A Board should be set up within the Ministry for (i) assessing the value of discoveries or inventions, (ii) examining the justifiability or otherwise of patents for results of researches, (iii) determining the scope for utilization of the same for commercial exploitation and (iv) apportioning the credit due to worker or workers responsible for the same.
49	68	The Committee feel that the multiplicity of Research Institutions has led to unplanned expansion of activities and the autonomous character of the different agencies has resulted in duplication of

Serial No.	Reference to para. No. in the Report	Summary of Conclusions/Recommendations
		<p>administrative and technical personnel. They think that the time is most opportune for re-orientation of the existing machinery so that a co-ordinated programme of research could be evolved in each sphere for the whole country and the work in different spheres divided between the Central, State or University Research Institutes.</p> <p>The Committee feel that maximum benefits are not being derived from the Indian Agricultural Research Institute at present. In order that the facilities available at the Institute are utilised to the fullest possible extent the Committee suggest:</p> <p>(i) There should be greater intake of Post-Graduate students for training in different branches of agricultural science in I.A.R.I. The number of trainees per annum should be increased from 50 to 200. The Committee feel that the training of large number of Post-Graduate students will have wholesome effect on the standard and quality of research in the States.</p> <p>(ii) The I.A.R.I. should carry on fundamental research and research on complicated problems or problems of All-India importance which no single State can perform for lack of finance or trained and technical personnel. Problems of local nature and experiments should be taken over by the State Research Stations.</p> <p>(iii) The I.A.R.I. should give technical guidance to the state Research Institutes so that research is conducted in a planned manner on scientific lines. Arrangements should be made for contact and co-ordination between the research staff of the Institute and the State Research Institutions and Universities.</p> <p>(iv) The I.A.R.I. should prepare every year a brochure in collaboration with the I.C.A.R. which should contain both the financial and economic aspects of the schemes or experiments undertaken in different parts of the country.</p> <p>(v) There should be periodical conference between the I.A.R.I. and State Agricultural Research Institutes for discussion of annual programmes and achievements and other matters of mutual interest.</p>
50	69	<p>The Committee recommend that a periodical achievement audit about every three years in the case of agricultural research institutes should be undertaken with a view to assessing the actual achievements of practical utility to the credit of the institutes.</p>