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**STANDING COMMITTEE ON AGRICULTURE
(2003)**

THIRTEENTH LOK SABHA

MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURAL RESEARCH AND
EDUCATION)

Presented to Lok Sabha on 25.04.2003

Laid in Rajya Sabha on 25.04.2003

DEMANDS FOR GRANTS (2003-2004)

FORTY-FIRST REPORT



**LOK SABHA SECRETARIAT
NEW DELHI**

April, 2003/Chaitra, 1925 (Saka)

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COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE (2003)

LOK SABHA

Shri S.S. Palanimanickam - Chairman

2. Shri Daud Ahmad
3. Prof. S.P. Singh Baghel
- * 4. Shri Girdhari Lal Bhargava
5. Shri Bhan Singh Bhaura
6. Shri Ambati Brahmaniah
7. Shri Ram Tahal Chaudhari
8. Shri Shivraj Singh Chouhan
9. Shri Adhir Chowdhary
10. Shri Thawar Chand Gehlot
11. Shri Raghunath Jha
12. Shri Abul Hasnat Khan
13. Shri M. Master Mathan
14. Shri Tarachand Shivaji Patel
15. Shri Bhaskar Rao Patil
16. Shri Jaisingrao Gaikwad Patil
17. Smt. Rama Pilot
18. Ms. Prabha Rau
19. Shri N.R.K. Reddy
20. Shri Chandra Bhushan Singh
21. Shri Laxman Singh
22. Shri Ramjiwan Singh
23. Shri Rampal Singh
24. Shri Tejveer Singh
25. Shri Punjaji Sadaji Thakor
26. Shri Tarlochan Singh Tur
27. Shri Chintaman Wanaga
28. Shri Bhal Chandra Yadav
29. Shri Mahboob Zahedi
30. Vacant

RAJYA SABHA

31. Dr. A.R. Kidwai
32. Shri Oscar Fernandes
33. Smt. Jamana Devi Barupal
34. Prof. R.B. S. Varma
35. Dr. A.K. Patel
36. Shri Sudarshan Akarapu
37. Dr. Swami Sakshi Ji Maharaj
38. Shri R. Kamaraj

39. Prof. M. Sankaralingam
40. Shri Gandhi Azad
41. Shri Datta Meghe
42. Shri R.S. Gavai
43. Shri Rao Man Singh
44. Shri Sukhbir Singh
45. Shri H.K. Javare Gowda

*

 Shri Girdhari Lal Bhargawa has been nominated to this Committee w.e.f. 7.4.2003.

SECRETARIAT

- | | | | |
|----|-------------------------|---|----------------------|
| 1. | Shri P.D.T. Achary | - | Additional Secretary |
| 2. | Shri S.K. Sharma | - | Joint Secretary |
| 3. | Shri Raj Shekhar Sharma | - | Deputy Secretary |
| 4. | Shri Hardev Singh | - | Under Secretary |

INTRODUCTION

I, the Chairman, Standing Committee on Agriculture, having been authorised by the Committee to submit the Report on their behalf, present this Forty-First Report on Demands for Grants of the Ministry of Agriculture (Department of Agricultural Research and Education) for the year 2003-2004.

2. The Standing Committee on Agriculture was constituted on 1st January, 2003. One of the functions of the Standing Committee, as laid down in Rule 331E of the Rules of Procedure and Conduct of Business in Lok Sabha, is to consider the Demands for Grants of the concerned Ministries/Departments and make a report on the same to the Houses. The report shall not suggest anything of the nature of cut motions.

3. The Committee took evidence of the representatives of the Ministry of Agriculture (Department of Agricultural Research and Education), on 25th March, 2003. The Committee wish to express their thanks to officers of the Ministry of Agriculture (Department of Agricultural Research and Education) for placing before them the material and information which they desired in connection with the examination of Demands for Grants of the Department for the year 2003-2004 and for giving evidence before the Committee.

4. The Committee considered and adopted the Report at their sitting held on 21st April, 2003.

NEW DELHI;
21 April, 2003
1 Vaisakha, 1925 (Saka)

S.S. PALANIMANICKAM
Chairman,
Standing Committee on Agriculture

PART -I

CHAPTER -I

Introduction

1.1 The Ministry of Agriculture consists of the following three Departments:-

- (i). Department of Agriculture and Co-operation;
- (ii). Department of Agricultural Research and Education; and
- (iii). Department of Animal Husbandry and Dairying.

The Department of Agricultural Research & Education (DARE) was established in the Ministry of Agriculture in December 1973.

1.2 The Department of Agricultural Research and Education (DARE) provides the necessary governmental linkages for the Indian Council of Agricultural Research (ICAR). The major functions of DARE are:

- To look after all aspects of agricultural research and education involving coordination between the Central and State agencies.
- To attend all matters relating to the Indian Council of Agricultural Research.
- To attend to all matters concerning the development of new technology in agriculture, horticulture, natural resource management, engineering, extension, animal husbandry, economics statistics and marketing and fisheries.
- International co-operation in the field of agricultural research and education including relations with foreign and international agricultural research, educational institutions and organizations.
- Fundamental, applied and operational research and higher education including co-ordination of such research and higher education.

Indian Council of Agricultural Research

1.3 The Indian Council of Agricultural Research (ICAR) is an apex scientific organization at the national level. The responsibility of the ICAR is for promoting and augmenting science and technology programmes relating to agricultural research, education and demonstration of new technologies as first line extension activities. The mandate of the ICAR is:

- To plan, undertake, aid, promote and coordinate education, research and its application in agriculture, animal science, fisheries, agroforestry, home science and allied sciences.
- To act as a clearing-house for research and general information relating to agriculture, animal husbandry, fishery, agro-forestry, home science and allied sciences through its publications and information system and instituting and promoting transfer of technology programmes.
- To provide, undertake and promote consultancy services in the field of research, education, training and dissemination of information in agriculture, animal science, fisheries, agro-forestry, home science and other allied sciences.
- To look into the problems relating to broader areas of rural development concerning agriculture, including post-harvest technology by developing co-operative programmes with other organizations.

1.4 As per the Annual Report (2002-03) of the Department, the research set up of ICAR includes 47 Central Institutes, 5 National Bureaux, 12 Project Directorates, 33 National Research Centres and 82 All-India Coordinated Research Projects. Besides, some Externally Aided Projects (EAPs) are also in operation. The ICAR also promotes research, education and extension education in 40 State Agricultural Universities (SAUs), 5 deemed to-be-Universities and 1 Central Agricultural University by giving financial assistance in different forms.

1.5 Details of the programmes under various sectors are indicated below:-

Sector	Programmes
(i) Crop Science	<ol style="list-style-type: none"> 1. Plant Genetic Resources 2. Food Crops 3. Forage Crops 4. Commercial Crops 5. Oilseeds 6. Plant Protection 7. Biotechnology 8. Seed Technology 9. National Seed Project
(ii) Horticulture	<ol style="list-style-type: none"> 10. Fruits 11. Vegetables 12. Potato & Tuber Crops 13. Plantation Crops 14. Spices 15. Floriculture, Medicinal & Aromatic Plants 16. Post-Harvest Management of Horticultural Crops
(iii) Natural Resource Management	<ol style="list-style-type: none"> 17. Soil Resource Inventory 18. Cropping Systems Research 19. Water Management 20. Nutrient Management 21. Agroforestry Research
(iv) Agricultural Engineering	<ol style="list-style-type: none"> 22. Farm Implements and Machinery 23. Post-Harvest Engineering & Technology 24. Energy Management in Agriculture 25. Irrigation Drainage Engineering
(v) Animal Science	<ol style="list-style-type: none"> 26. Animal Genetic Resources Conservation 27. Livestock Improvement 28. Livestock Products Technology 29. Animal Health
(vi) Fisheries	<ol style="list-style-type: none"> 30. Capture Fisheries 31. Culture Fisheries 32. Fish Genetic Resources 33. Harvest & Post Harvest Technology 34. Fisheries Education
(vii) Agricultural Economics & Statistics	<ol style="list-style-type: none"> 35. Agricultural Economics & Policy Research 36. Agricultural Statistics & Computer Application
(viii) Agricultural Extension	<ol style="list-style-type: none"> 37. a. Krishi Vigyan Kendras and Trainers' Training Centres <li style="padding-left: 2em;">b. Technology Assessment and Refinement through Institute Village Linkage Programme 38. NRC on Women in Agriculture 39. Directorate of Information & Publications of Agriculture

(ix) Agricultural Education	40. Strengthening of Agricultural Education 41. National Academy of Agricultural Research Management
(x) Management and Information Services	42. ICAR Headquarters including DARE, Support to National Academy of Agricultural Science (NAAS) & Professional Societies, etc.
(xi) World Bank and other Foreign Aided Projects	43. World Bank Aided – National Agricultural Technology Project, Other Foreign Aided Project 44. Indo French Bean proposal on Seabass Breeding and Culture

CHAPTER – II

Demands for Grants of the Department for the year 2003-04

2.1 The Demands for Grants of the Department of Agricultural Research and Education (DARE) for the year 2003-04 are included as Demand No. 2 under the Ministry of Agriculture. The Demand includes besides Secretariat expenditure of the Department, contribution to international bodies, payment of grants-in-aid to the Indian Council of Agricultural Research to enable it to meet the expenditure on the various research institutes controlled by it and for its several research projects, schemes and activities. The provision also includes payment of net proceeds of cess under the Agricultural Produce Cess Act, 1940.

2.2 For the year 2003-04, the Department has been allocated a total amount of Rs.1510.92 crores (Rs.775 crore for Plan and Rs.735.92 crores for non-Plan expenditure) on Revenue Account. Allocations made in 2002-03 and 2003-04 are indicated below:

(in crores of Rs.)

Major Head	Budget 2002-03			Revised 2002-03			Budget 2003-04		
	Plan	Non-Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
3451-Secretariat Economic Services (Salaries, Travel, Office Expenses, etc.)	-	1.05	1.05	-	1.05	1.05	-	1.20	1.20
2415-Crop Husbandry, Soil & Water Conservation, Animal Husbandry, Dairy Development, Fisheries, Forestry, Contributions to International Organizations, Assistance to CAU									
2552-Lump-sum provision for projects/schemes in N.E. & Sikkim	54.50	-	54.50	39.50	-	39.50	77.50	-	77.50
TOTAL	775.00	723.80	1498.80	725.00	723.80	1448.80	775.00	735.92	1510.92

2.3 Details of sectoral allocations for the years 2002-2003 and 2003-2004 are given at Annexure –I.

Allocations made to DARE/ICAR out of the total Plan budget of the Government of India

2.4 Details of the budgetary allocations made (Central Sector) in favour of DARE/ICAR out of the total Plan budget of the Government of India during the IXth Plan and first two years of the Xth Plan (2002-03 and 2003-04) are indicated below:

(Rs. in crore)

Year	Plan Budget (BE) of Government of India (Central Sector)\$\$	Plan Budget of DARE/ICAR (Central Sector)			
		Budget Estimate	%age	Revised Estimate	%age
1997-98	91838.71	331.17	0.36	331.17	0.36
1998-99	105187.16	531.17	0.50	445.00	0.42
1999-2000	103520.93	573.50	0.55	504.00	0.49
2000-2001	117333.80	629.55	0.54	550.00	0.47
2001-2002	130181.34	684.00	0.53	684.00	0.53
Total of Five Years	548061.90	2749.39	0.50	2514.17	0.46
2002-03	144037.77	775.00	0.53	725.00	0.50
2003-04	147892.61	775.00	0.52	-----	-----

\$\$ Source : Planning Commission

2.5 It is observed from the above that the outlay earmarked for DARE/ICAR (Central Sector) during different years of the IXth Plan is a very small fraction (ranging from 0.36 to 0.55%) of the total Plan budget of the Government of India at BE level. The percentage was even less at the RE stage (between 0.36 to 0.53%). The average overall percentage during the entire IXth Plan period (1997-98 to 2001-02) comes to 0.46% only at RE level. The share of DARE/ICAR for the year 2003-04 has been reduced to 0.52% which is less in comparison to the previous four years. The allocation for the year 2002-03 which was Rs.775 crore was subsequently reduced to Rs.725 crore at the RE stage.

The allocation for 2003-04 has been fixed at Rs.775 crore which is the same as budgeted for the previous year.

2.6 The Department were asked to give reasons for the decline in the percentage of allocations made to DARE/ICAR out of the total Plan budget of Government of India. They informed the Committee that no specific reason for the decline in the percentage allocation was given by the Planning Commission.

2.7 The Committee wanted to know the details regarding amount proposed by them in their budget proposals, allocated, its percentage to AGDP, etc during the past five years. The information given by the Department is indicated below:-

(Rs.in crore)

Year	Plan			Non –Plan			Total Allocation		Agriculture GDP (AGDP) * at Current Prices	%age of DARE (BE) allocation w.r.t. AGDP	%age of DARE's Actual RE w.r.t AGDP
	Amount Proposed	Amount Allocated	Actual (RE)	Amount Proposed	Amount Allocated	Actual (RE)	BE	RE			
1997-98	1000.00	331.17	331.17	268.10	268.10	354.32	599.27	685.49	353490	0.17	0.19
1998-99	531.17	531.17	445.00	475.02	475.02	560.94	1006.19	1005.94	406498	0.24	0.24
1999-2000	712.68	573.50	504.00	633.79	633.79	800.00	1207.29	1304.00	421396	0.28	0.31
2000-01	1082.59	629.55	550.00	864.36	775.00	775.00	1404.55	1325.00	435135 @	0.32	0.30
2001-02	1497.90	684.00	684.00	705.05	705.05	712.09	1389.05	1396.09	473407 **	0.29	0.29
2002-03	1500.00 \$	775.00	725.00	810.44	723.80	723.80	1498.80	1448.80	***	--	--

- * Source:- Agriculture Statistics at a Glance, 2002 – Directorate of Economics & Statistics, Ministry of Agriculture
- Source :- Central Statistical Organisation, Ministry of Statistics and Programme Implementation @ 2000-01 – Provisional Estimates. ** 2001-02 Quick Estimates)
- *** Financial Year is yet to be completed.
(\$ Besides this, Rs.200 crore were proposed for Catch Up Grant)

2.8. It was informed by the Department that the Planning Commission had constituted the Xth Plan Working Group for DARE under the chairmanship of late Prof. S.K.Sinha (ex-Director, IARI). Prof. Sinha had recommended, inter alia to “ provide 1 per cent of the GDP of Agriculture and Allied Sector (Rs.25,000 crore now) for agricultural research and education. Out of this, allocate Rs.15,000 crore to States by providing a budget line in the State Plan for their agricultural research and education programmes, of which 50% should be through project funding.”

Financial outlays to DARE/ICAR and allocation/utilization of funds during the IXth and Xth Plan (first 2 years)

2.9 Initially the Planning Commission had communicated the IXth Plan (1997-2002), outlay of Rs.2635.22 crore in respect of DARE/ICAR, which was subsequently increased to Rs.3376.95 crore in August 2000 as a result of Parliamentary Standing Committee on Agriculture’s (PSCA) continuous positive recommendations that it should be at least 1% of Agricultural GDP. However, the total of yearly allocations (through Annual Plans) was only Rs. 2749.39 crore which was subsequently subjected to cuts at RE stage and the total allocation was further reduced to Rs. 2514.17 crore.

2.10 For the Xth Plan, the Department had proposed a minimum requirement of Rs. 15,000 crore alongwith a one time catch up grant of Rs. 1,000 crore. However, the Planning Commission approved only Rs. 4868 crore which was subsequently raised to Rs. 5368 crore by providing Rs. 500 crore for setting up new KVKs.

2.11 For the Annual Plan 2002-03, the allocation was Rs. 775 crore which was reduced to Rs. 725 crore at RE stage. For the Annual Plan 2003-04 against the projected demand for Rs. 1300 crore and a catch up grant of Rs. 200 crore, the Planning Commission

allocated Rs. 775 crore only. The Department in their written reply had informed as under:-

“There was an understanding at the Department’s meeting with Planning Commission that its plan allocation for 2003-04 would be raised to Rs.1000 crore. However, the final allocation from Planning Commission for DARE/ICAR’s Annual Plan 2003-04 was only Rs.775 crore. Similarly during the Department’s meeting on Budget discussion with the Ministry of Finance, a strong plea was made not to cut the allocation of Rs.775 crore for 2002-03.”

2.12 (a). Plan allocations:

The sector-wise Plan allocations/utilization of funds for the IXth Plan and first two years of Xth Plan are given at Annexure _____ (Statement 1 of SDFG document).

The Committee noted that there had been huge shortfalls under most of the sectors during the IXth Plan. There was an excess expenditure of Rs.8.76 crore under the head ‘DARE & CAU’ and lesser amounts were allocated under the ‘Crop Science’ and ‘DARE & CAU’ heads, during 2003-04. The reasons given by the Department for the above are as follows:

“During IXth Plan, cuts were imposed at R.E. stage of 1998-99, 1999-2000 and 2000-2001; due to this the actual availability of funds during IXth Plan was Rs.2514.17 crore against the total of individual year B.E.s of Rs.2749.39 crore. Comparing the over-all utilization of IXth Plan with the actually available amount of Rs.2514.17 crore, the over all utilization was 98.6%. However, in so far as the shortfalls in respect of individual sectors are concerned, in most cases the BE was reduced at RE stage due to cuts and also these can be attributed mainly due to non creation of the recommended manpower on account of imposition of ban, non-approval of vehicles and delay in construction works at the instance of CPWD at various institutes.”

(b). Non-Plan allocations :

Sector wise non-plan allocation/utilisation of funds for the IXth Plan and first two years of the Xth Plan are given at Annexure _____.

2.13 The Committee enquired about the reasons for lesser allocations for the year 2003-04 as compared to the RE 2002-03 for almost all the sectors (except National Resource Management and Agricultural Extension). The Department in their reply informed that the RE 2002-2003 allocation included ICAR's own revenue receipts, interest on short-term deposits and recoveries of loans and advances. Likewise, the allocation of 2003-2004 was likely to be enhanced at RE stage depending on availability of resources after examining the actual realization of the receipts and recoveries.

One Time Catch Up Grant

2.14 The Department has been proposing a one time Catch up Grant since 1998-99 for modernisation of research infrastructure, replacement of obsolete equipment, etc. For the IXth Plan a grant of Rs.500 crore was proposed and for the Xth Plan, a catch up grant of Rs. 1000 crore (Rs. 200 crore each during 2002-03 and 2003-04) was proposed. However, the Department were allocated a total of Rs. 725 crore in 2002-03 (RE stage) and Rs. 775 crore in 2003-04. No separate allocation and commitment of funds under Catch Up Grant was given by the Planning Commission. The Department was asked as to what special efforts they had made to get the one time Catch up Grant which was so essential for replacement of obsolete equipment, etc. and how would the non-receipt of the Grant would affect the research programmes/schemes. In response, the Department has informed as under :-

“The Department has made intensive and sustained efforts formal and informal for continuing the catch up grant during Xth Plan. As a result of non-availability of this component, the Department would make efforts through its limited Plan funds to replace some of the old/obsolete essential equipment etc.”

Main Plan Projects/Schemes of ICAR

2.15 The Department have informed (vide SDFG document para 5.2) that as a result of Zero Based Budgeting (ZBB) exercise, out of the original 235 Plan projects only 72 Main Plan Projects have been retained during the Xth Plan to reorganise different activities. Details of the 72 Main Plan Projects/Scheme together with total Tenth Plan outlay, BE & RE for 2002-2003 and BE for 2003-04, are given at Annexure _____.

2.16. In response to a query about the savings that were likely to accrue from the merger of the schemes, the Department informed that the savings anticipated from the integration could be assessed only when the EFC/SFC of all the schemes were over and the allocation for the projects was sanctioned for the Xth Five Year Plan. They also informed that the SFC/EFC memos. of a number of schemes had already been sent to appraisal agencies. The comments/suggestions received from Planning Commission/ Ministry of Finance had been responded/were being responded to on priority so that the proposals were considered by competent bodies, i.e. SFC/EFC at the earliest.

2.17 On a further query about the stages of various EFCs/SFC of the schemes, the Department informed as under:

“As a result of ZBB exercise, 235 schemes were reduced to 72 main schemes along with sub-schemes, in consultation with Planning Commission. The overall Xth Plan outlay of the Department was distributed / earmarked to individual main schemes and the Subject Matter Divisions were requested to get formulated the Xth Plan SFC / EFC proposals for respective schemes. 16 SFC and 14 EFC proposals have already been circulated to the appraisal agencies including Planning Commission and Ministry of Finance. Subsequently, the Planning Commission had further forwarded some formats for seeking additional information in respect of schemes already sent to them as well as for which the proposals are under formulation stage. This additional requirement through prescribed format by the Planning Commission is likely to delay the process of getting comments / in principle approval from Planning Commission / Ministry of Finance, though the Department has initiated expeditious action in this regard. After getting the formal comments / in principle approval from Planning

Commission over the proposals already sent, the Department would fix the date(s) for the respective SFCs / EFCs which will be Chaired by the Secretary, DARE & DG, ICAR, as per prescribed procedure. After the minutes of SFCs / EFCs are circulated, the approval of Agriculture Minister / Finance_Minister too need be obtained as per applicability of the procedure. In case of EFCs exceeding Rs. 100 crore, the respective recommendations contained in the minutes of the EFC along with Cabinet Committee on Economic Affairs Agenda Note will be forwarded to the Cabinet Secretariat for seeking the approval of Cabinet Committee on Economic Affairs (CCEA). After the approval from the above mentioned concerned authorities are obtained, the concerned Subject Matter Divisions formulate and issue the sanction letters after seeking the approval of Competent Authorities in the Department. The Department anticipate to accomplish the clearance of SFC/EFC proposals by the end of 2003-04.”

2.18 The status of the submission SFC / EFC memos to the Planning Commission / Ministry of Finance is as under:

Status of Xth plan SFC/EFC Memos circulated to Appraisal Agencies

Division	SFC Case		EFC Case	
	Total	Sent for Appraisal	Total	Sent for Appraisal
Animal Science	6	5	8	2
Fisheries	2	2	4	4
Natural Resource Management	2	1	10	5
Agril. Extension	2	2	1 (CCEA)	-
Crop Science	3	2	12 (3 CCEA)	3
Agril. Engineering	3	1	2	-
Horticulture	3	2	6 (1 CCEA)	-
E&SM	1			
Education	1		1(CCEA)	
CAU/DARE			1	
MIS	1	1		
World Bank/EAPs	1		1(CCEA)	
TOTAL	25	16	46	14

- Others: One scheme on Technology Mission on Horticulture for NE Region (Horticulture)

= SFC Cases = 25 EFC Cases = 46 Others = 1 **Total =72** ”

It was observed from the above Table that out of 25 cases of SFC, 16 have been sent for appraisal and out of 46 EFC cases, 14 have been sent for appraisal.

2.19 According to the Department, they have also weeded out the following 9 schemes/ Plan projects as a result of Zero Based Budgeting (ZBB) exercises :-

1. AICRP on Post Harvest Technology of Horticultural Crops
2. AICRP on Microbial Decomposition and Recycling of Farm and City Waste
3. AICRP on Tillage Requirement
4. AICRP on Engineering Measures for Efficient Land and Water Management.
5. Network Project on Embryo Transfer Technology in Animal Production.
6. AICRP on Blood Protista.

7. AICRP on Agricultural Drainage
8. Project on Promotion of Research & Development of Hybrid Seed in selected Crops.
9. AICRP on Management of Diara Land.

2.20 On enquiring about the reasons for weeding out these schemes and the savings that would accrue, the Department informed that some of the schemes had outlived their utility for the Xth Plan and others had completed their targets. The IXth Plan outlay for the weeded out schemes was Rs.26.65 crore and on account of their closure no expenditure would be incurred on them in the 10th Plan.

New Initiatives in the emerging areas of research

2.21 In Reply to Question No.2133 answered in Lok Sabha on 2 December, 2002 the Department had informed that DARE/ICAR propose to initiate the following six New Initiatives/projects during the Xth Five Year Plan, subject to the approval of Planning Commission:-

1. Impact of Climate Change on Agricultural Productivity.
2. Network Project on Organic Farming.
3. Networking on Transgenics.
4. Institute of National Bureau of Indian Veterinary Type Culture.
5. Network on Biosystematics of Insects.
6. NRC for Agricultural Extension.

2.22 The Department was requested to give complete details of these New Initiatives/Projects, the stages of their progress and the benefits that will accrue from them together with financial implications of each Initiative/Project. The details furnished

by the Department are given below:-

“1. Impact of Climate Change on Agricultural productivity

Objectives :

- * To quantify the sensitivities of current food production systems in different scenarios of climatic change by integrating the response of different sectors.
- * To quantify the least-risk or ‘no regrets’ options in view of uncertainty of global environmental change which would also be useful in sustainable agricultural development.
- * To determine the available management and genetic adaptation strategies for climatic change and climatic variability.
- * To determine the mitigation options for reducing global climatic changes in agro-ecosystems.
- * To provide policy support for the international negotiations on global climatic changes and agriculture.
- * To develop infrastructure for climate change research in different sub-sectors of Indian agriculture and to institutionalise the network.

Benefits may accrue :

- * Improved understanding of the impact of climate change on different sectors of agriculture.
- * Research findings for developing adaptation strategies for increasing climatic variability and climate change leading to increased income/stability in production.
- * Strategies for mitigating climatic change through agriculture
- * Policy support for the Indian government for global negotiations.

Estimated Budget:

The cost of the scheme is projected at Rs 10.75 crore out of which ICAR Share would be Rs 9.95 crore. The proposal is under consideration of the Planning Commission.

2. Network Project on Organic Farming.

Objectives :

- i) Documentation of existing indigenous technical knowledge (ITK) on Biodynamic farming.
- ii) Inventorisation, augmentation and quality assessment of available Bio-organic resources like; nutrient carriers, bio-pesticides, weedicides, soil amendments etc., having potential for organic/biodynamic farming.

- iii) Standardization of manurial schedules in terms of source, rates, time and method of application for selected crops under rainfed and irrigated conditions.
- iv) Developing bio-control measures for various plant diseases and pests.
- v) Evaluation of organic/biodynamic farming vis-a-vis farming with integrated nutrient and pest management in terms of yield, quality of the produce, soil health and economic advantage.

Benefits may accrue :

The increased use of pesticides and fertilizers is contaminating foods, water and fibres with hazardous chemicals and bringing about overall deterioration in soil health and quality of environment. The project would help mitigate the health and environmental hazards of chemical based intensive agriculture. There is going to be a greater spurt in the practice of organic farming in the years to come with global trade in organic farming picking up substantially. India could be a bigger beneficiary of this boom. The low external input agriculture would transform favourably the socio-economic fabric of the rural communities, who depend solely on the local resources for their livelihood. The profits on the organic farms keep on flowing even under adverse situations of climate and prices of inputs/ outputs through diversification into dairying, poultry, piggery, aquaculture and horticulture etc.

Estimated Budget:

The total cost of the scheme has been projected at Rs 6.42 crore out of which ICAR Share of Rs 5 crore. The Planning Commission has not agreed. However, the Department has again taken up the matter with Planning Commission.

3. Networking on Transgenics

Objectives:

- To develop constructs for biotic & abiotic stresses., and for enhanced nutritional quality in important crops
- To develop transgenics for resistance to insect pest of important crops including horticultural crops
- To develop transgenic resistance to diseases specially for virus diseases.
- To enhance the nutritional value of crops specially for amino acid, vitamins and micronutrients etc.
- To develop transgenics for enhanced shelflife in horticultural crops.

Benefits may accrue:

- Biotic stresses specially resistance to pest and diseases, which are not covered under the conventional breeding, will be overcome through transgenic programme.
- Considering the importance of drought, salinity, heat, cold etc. this technology will be utilized for development of resistant varieties of different crops.
- This will give more benefit to consumers by having enhanced nutritional value with respect to amino acids, vitamins and micronutrients.
- The transgenics technology will enhance the post harvest (Shelf) life of a number of horticultural crops.

Estimated Budget:

The proposal is under formulation stage and estimated to cost Rs 40 crore during 10th Plan.

4. Institute of National Bureau of Indian Veterinary Type Cultures**Objectives and Expected Benefits:**

In India, a large number of microbial agents from animal origin are being used for teaching, research, vaccine production, diagnostics, etc. at the research institutes, veterinary colleges, universities, vaccine manufacturing units, diagnostic centers and various other centers. A large number of microbial cultures and viruses are being required from time to time by various organizations of the country and abroad. Hence keeping in pace with the international development in the area of microbiology, the need for broad based well accepted policy in the maintenance of reference strains of the microorganisms of animal origin is felt an urgency. It is all the more essential, keeping in view the availability of a wide spectrum of such organisms in India and their international importance. Keeping in view of the present day scenario where a large number of research activities are going on in India, and a large number of new microbial isolates are being brought out annually, this vast national asset needs to be preserved, maintained for current and future needs of the country as well as to get foreign exchange by way of supplying them to various needy agencies.

Estimated Budget:

The total cost of the project is estimated at Rs 15 crore during 10th Plan. The Planning Commission has suggested to take up this activity in some existing institute of DARE/ICAR.

5. Network on Insect Biosystematics

Objectives

- Exploration, collection of Insect Biodiversity, mapping of biotic stresses.
- Biosystematic studies – Identification, characterization, documentation.
- Development of diagnostic tools for identification of pests, predators, parasites.
- Development of bioinformatic tools – inventories of insect biodiversity.
- Development of multimedia based field diagnostic kits / aids for crop pests.
- Human Resource Development (HRD) – capacity building in biosystematics.
- Biosystematics/biodiversity/bioinformatics to cater to WTO/IPPC/SPS guidelines.

Benefits may accrue:

- Lead to self sufficiency and self excellence in insect biosystematics.
- Save the identifications costs that will be paid to agencies like CABI.
- Orient insect biosystematic towards pest diagnostics, IPM and sustainable agriculture.

Estimated Budget:

The cost of the project is at least Rs 15 crore during 10th Plan and the proposal is at formulation stage.

6. NRC for Agricultural Extension

Objectives:

Focusing extension research and integrate extension methodology and technologies for enhanced production and productivity.

Benefits may accrue:

- Proposed Institute will help in strengthening research in agricultural extension.
- Development of extension models and tools, research on process documentation and monitoring of impact.
- Development of Information Communication Technology (ICT) and expert system
- Application of geo-space information system
- Developing resource materials for distance learning and extension education

- Collection of documents and validation of indigenous technical knowledge
- Research on participatory technology development process.

The Planning Commission has not agreed indicating that the activities proposed to be carried out by the new Centre could be taken up as additional responsibility by the existing Institutes/Centres of ICAR/MANAGE of DAC.

Estimated Budget:

The estimated cost of the project is Rs 15 crore during 10th Plan.”

2.23 The status of the six new Initiatives/projects proposed by DARE/ICAR during the Tenth Plan, is as follows:

S. No	Projects	Status
1	Impact of Climate change on Agricultural productivity	Proposal under consideration of the Planning Commission
2	Network Project on organic farming	Planning Commission has not agreed . matter again taken up.
3	Networking on Transgenics	Proposal under formulation
4	Institute of National Bureau of Indian Veterinary Type Cultures	Planning Commission has suggested to take up this activity in some existing Institute of DARE/ICAR.
5	Network on Insect Bio-systematics	Proposal under formulation
6	NRC for Agricultural Extension	Planning Commission has suggested to take up this activity in some existing Institute of ICAR/MANAGE of DAC

On enquiry whether the Department has identified some Institute(s) of ICAR/DAC for carrying out the proposed activities as suggested by the Planning Commission, the Department informed as under:

“1. **Impact of Climate change on Agricultural productivity**

IARI, New Delhi has been identified as the main institute to carry out this work.

2 **Network Project on organic farming**

Indian Institute of Soil Science, Bhopal has been identified as the main institute to take up this work.

3. **Networking on Transgenics**

The proposal is being formulated by the NRC on Plant Bio-technology, IARI, New Delhi.

4. **Institute of National Bureau of Indian Veterinary Type Cultures**

The need and justification for the establishment of an independent institution on Indian Bureau of Veterinary Type Culture has already been communicated to Planning Commission for consideration. It is well known fact that veterinary cultures are totally different to any other cultures of both pathogenic as well as seed culture origin and would be used for production of vaccines and diagnostic antigens. Therefore, an independent set up of Bureau at national level is urgently needed. The suggestions of Planning Commission for utilizing the common facilities would be kept in mind while locating this institution. therefore, no other institute of ICAR/DARE has been identified and Planning Commission has been requested for 'in principle' approval for the establishment of an independent institution on Indian Bureau of Veterinary Type Culture during X Plan and the response of Planning Commission is awaited.

5. **Network on Insect Bio-systematics**

The proposal is being formulated by IARI, New Delhi.

6. **NRC for Agricultural Extension**

There is only one institute under the Agril. Extension Division i.e. NRC on Women in Agriculture. The vision for establishment of the Institute is to give focus on extension research and integrate knowledge and technologies for enhanced production and productivity. The activities can not be taken up with other Institutes.”

2.24 The Committee noted from the information furnished (Statement I of Scrutiny of Demands for Grants document) that Rs. 35.00 crore were allocated for New Initiatives/ Pipeline Projects during 2002-03 but no money was spent out of this allocation. Also during 2003-04, Rs. 139.18 crore was proposed by the Department but no amount was allocated to this scheme. The Department was asked to state the reasons for not spending any amount during the year 2002-03 and non-allocation of funds during the year 2003-04. In response the Department informed that although tentatively funds were

allocated for New Initiatives/Pipeline Projects during 2002-03 & 2003-04 but due to non-clearance of the Planning Commission and financial constraints no new initiatives could be undertaken.

2.25 The Department had earlier sought funds for the following four Core Areas of Agricultural Research and Education during 2002-03:-

- | | | | |
|----|---|---|--------------|
| 1. | Agricultural Bio-technology | - | Rs.300 crore |
| 2. | Bio-diversity | - | Rs. 70 crore |
| 3. | Biosystematics and pest disease and weed management | - | Rs. 50 crore |
| 4. | First rate Human Resource Development | - | Rs.100 crore |

On being asked whether the Department had got any separate/additional funds for these four Core Areas, the Department informed as under:

“The Department has not got any separate/additional funds for these Core Areas of research and they were to be accommodated within the allocation approved for the Department 2002-03. Pursuit of these initiatives on a truly significant scale will require additional resources.”

However, the Department is stated to be further requesting the Planning Commission to enhance its Annual Plan 2003-04 outlay.

Functioning of ICAR

2.26 The Committee in their 19th Report (2001) had recommended that an independent body of agricultural and scientific experts should be constituted by DARE/ICAR to evaluate the worth of research conducted compared with the non-plan expenditure incurred on each scientist conducting the research. This was reiterated by the Committee in their 31st Report (2002). The Department had informed that a proposal for evaluation

of the research work done was given by the National Productivity Council(NPC) and was under examination by the Department.

2.27 Asked about the details of the proposals given by the National Productivity Council and the stage of its consideration, the Department informed as under:

“The National Productivity Council (NPC) was requested to submit a proposal to evaluate the worth of research conducted by the ICAR vis-à-vis the expenditure incurred. For formulation of their proposal the NPC decided to visit a representative sample of ICAR institutes to know the kind of work being undertaken and other related parameters. They have accordingly visited the following institutes:

1. National Dairy Research Institute(NDRI), Karnal
2. Central Soil Salinity Research Institute (CSSRI), Karnal

Their proposal has since been received in the Council. The terms of Reference proposed by the NPC are as under:-

1. To develop a suitable Productivity Measurement Model for evaluation of efficiency and effectiveness of the research scientists and Institutes, on a continuing basis.
2. To assess and evaluate the impact of agricultural research activities undertaken by ICAR.

The proposal has been examined by the Department and it has been considered necessary to interact with the NPC so as to fine-tune their methodology for a focused study and evaluation of the worth of research work done in the ICAR. For this purpose an interactive session is going to be arranged shortly and further action will be taken thereafter.”

The Department further informed as below:

“After receipt of their report in February, 2003, the NPC was requested to give a presentation before senior officers of DARE/ICAR. This presentation was held on 27.3.2003, where senior officers from DARE/ICAR including Heads of Crop Sciences, Natural Resource Management and Directors of the two institutes visited by NPC were present. After the presentation it was decided that the NPC should come up with a revised module after discussing the matter thread-bare with the concerned scientific experts. NPC have mentioned an amount of Rs 26.05 lakh for taking up the study which will be completed by them within a period of 6 months.”

2.28 The Department had constituted a Committee in August, 2002 under Shri Hemendra Kumar (Special Secretary, Department of Agriculture & Cooperation,

Government of India) to review the Administrative Structure of the ICAR at Headquarters and its Linkages with Institutions and SAUs. The Committee submitted its Report on 31 December, 2002. A summary of the major recommendations of the Committee is annexed (Annexure V). Regarding the action taken on the recommendations of the Committee, the Department informed as under:

“The recommendations, like change in the composition of the Governing Body, amendment in the rules and by-laws to reduce the frequency of the meetings of the GB, delegation of powers to the Directors, modernization of the Institutes, concept of Regional DDGs, rationale of having NRCs, constitution of executive committee, interface with the Agricultural Universities, etc. will require in-depth study. Looking to the wide ranging implication, in-depth analysis of each recommendation is being made and every effort would be made to reach to a final decision on each of the recommendations at the earliest.”

Externally Aided Projects (EAPs)

2.29 (A). National Agricultural Technology Project (NATP) :

The NATP is one of the externally (World Bank) aided projects which is being implemented by ICAR and the Department of Agriculture and Cooperation since November 1998 through December 2003. The objective of the NATP has been to improve the relevance of agricultural technologies being generated, their refinement, assessment and transfer to meet the changing needs of farmers, processors and consumers, thereby meeting the national goals of food security, economic growth, equity, alleviation of rural poverty and conservation of natural resources. The development objectives are being met through implementation of diverse activities planned under three major components, viz. Organisation and Management System, Agro-ecosystem Research and Innovation in Technology Dissemination.

2.30 The Committee noted that the project cost for 5 years upto 31 December 2003 now stood at USD 201.3 million (Rs.992.3 crore). The World Bank's contribution was

USD 160.9 million and the GOI's share was USD 40.4 million. Of the World Bank's contribution, IDA credit was USD 64.1 million and IBRD loan was USD 96.8 million.

2.31 In response to a query whether the achievements under all the 3 components of the Project had led to actual development/improvement of skills of the beneficiaries, and whether any cost-benefit analysis was done to ascertain whether the achievements were commensurate with the project cost, the Department in their written reply informed as under:

“The very concept of the NATP is in participatory mode and a large number of the Production System Research (PSR) projects are having field research orientation. In fact the whole TAR-IVLP programme under the PSR mode of research is based on client participation. The ATIC experiment of the ICAR component of ITD and the ATMA experiment of the DAC component of the ITD have been quite successful in demand driven and client oriented extension. Therefore, the NATP has led to an actual development/ improvement of skills of the beneficiaries.

Achievements have been quite commensurate with the project cost. Exact cost benefit analysis is in progress for a set of projects. Research utilization has gestation period of about 8 to 20 years, depending on the speed of technology dissemination. However, in the process of impact analysis of technologies developed/ being developed through a sample of 72 projects, initial data reveal that both production and productivity will increase significantly.”

2.32 The Department had also informed that all the six Supervision and Mid-term Review Missions have rated the overall progress of implementation of NATP as ‘satisfactory’ for the research and ITD components. However they advised that the Financial Management has to be geared up and that has been taken up vigorously.

2.33 As mentioned earlier, the NATP would terminate in December, 2003. The Committee desired to know how many programmes/schemes are likely to remain incomplete and whether any financial provisions has been made for completion of such

programmes after conclusion of the project. The Department in their written reply informed as under:

“As of now 174 projects sanctioned in the third round in the year 2002-03 under the component Competitive Grants Programmes (CGP) will continue beyond December 2003. For the extended period a provision has been made to meet the cost from the AP Cess Fund. However, if the World Bank agrees to extend NATP beyond December, 2003, the savings likely to be available under the project will be utilised to meet the cost during the extended period.”

2.34 During oral evidence of the representatives of the Department on 25 March, 2003, in response to a query, the Secretary, DARE informed that the savings of about Rs.100 crore under the Project would be utilized to meet the cost during the extended period which would be about two years.

2.35 On enquiring as to whether the NATP was likely to be extended or whether the Department was proposing to embark on a similar project, the Secretary, DARE informed that the Department do not have any proposal to start a project similar to NATP.

(B). Seabass Breeding and Cage Culture:

2.36 In India, Seabass (Bhetki) forms part of perch fishery of artisanal sector. It forms component of fish culture in the traditional culture systems. The juvenile fishes trapped in the traditional farms are allowed to grow and harvested after 6-8 months period. The seed availability from the wild is seasonal and sporadic and not dependable. Understanding the potential of the seabass farming, during the first meeting of Indo-French working Group on Cooperation in the field of agriculture and agro-food industries, held during November 1994, identified breeding and culture of seabass as one of the collaborative programme in the fisheries and aqua culture sector and included in the work schedule under the Protocol. Central Institute of Brackish Water Aquaculture (CIBA) Chennai as the nodal institute to implement the project. CIBA submitted a

detailed proposal on seabass breeding and cage culture in consultation with the French counterpart COFREPECHE, subsidiary of IFREMER, a world famous institution of the French Government in the Marine Sectors.

2.37 As envisaged for the preliminary studies the COFREPECHE France Engineer visited the site,- the CIBA experimental at Muttukkadu (35 km. South east of Chennai) and the site validation was completed.

2.38 For creation of infrastructural facilities an amount of Rs.63,13,000/- has been deposited with the CPWD for executing the work. CPWD floated the tenders for the creation of hatchery facilities and the work orders have been awarded to the contractors. Earth filling work for the establishment of hatchery facilities and larval rearing facilities was completed. The project duration is extended till June, 2003, in view of delays in implementation.

2.39 The Committee desired to know the reasons for the delay in implementation of the project which necessitated its extension till June,2003. The Department informed as under:

“The hatchery required for the project could not be set up due to delays in environmental clearances of the project area with reference to Coastal Regulation Zone (CRZ) notification. Every effort is being made to obtain the required clearances from the concerned authorities. Other component of the project like equipment procurement, brood stock development, etc. are being undertaken to adhere to the targeted date for completion of the project, i.e June 2003.”

Agricultural Extension – Krishi Vigyan Kendras

2.40 The activities of the Agricultural Extension division include technology assessment and refinement and its dissemination through training of farmers and inservice extension personnel, on farm testing and frontline demonstration. The major projects of the Division are Krishi Vigyan Kendras(KVK), Trainers Training Centre

(TTC), Technology Assessment and Refinement through Institution-Village Linkage Programme (IVLP), and Agricultural Technology Information Centre (ATIC). The Council has established one national research centre for women in Agriculture (NRCWA) at Bhubaneswar (Orissa). At present there are 261 KVKs 8 TTCs, 70

IVLP Centres, and 44 ATICs in State Agricultural Universities. ICAR Institutes, NGOs and other institutions under frontline extension programmes of the council. The council have earlier strengthened 53 Zonal Agricultural Research Stations (ZARS) to take up the additional functions of KVK. During the year, 22 new KVKs and two TTCs have also been sanctioned.

2.41 A total of 18.5 thousand training courses for 4.33 lakh farmers and farm women, three thousand vocational and skill oriented training for 66 thousand rural youths and 1.6 thousand training programme for 41 thousand inservice personnel were organized. In addition 18 thousand extension activities were also organized to accelerate the process of dissemination of technologies. KVKs organized more than 10 thousand ha. front line demonstrations in oilseeds, pulse and other crops benefiting more than 23 thousand farmers. A total of 296 technologies were identified for on farm testing in order to evaluate and assess its impact. KVKs produced 38051 tonnes of seeds of cereal, oilseeds, pulses and vegetables. KVKs also produced 126.5 lakh saplings/seedlings of Fruit/Vegetables and forest species.

2.42 The Planning Commission has allocated Rs.5368 crore as Tenth Plan Outlay to DARE/ICAR which includes Rs.500 crore for establishment of new KVKs. Regarding availability of funds for KVKs, the Department informed as under:

“Although provision of Rs 500 crore is made for new KVKs for the 10th Plan, , no additional funds were actually made available. From the existing resources 14

KVKs have been sanctioned during 2002-03. The establishment of additional KVKs will depend on the actual availability of financial resource from the Planning Commission during the remaining period of 10th Plan.”

2.43 Regarding establishment of one KVK in each district in the country the Department informed as under :

“Out of 585 districts (INDIA 2002), 8 are urban. The Council has already sanctioned for establishment of KVKs in 339 districts including Zonal Agricultural Research Stations, strengthened to take up the additional functions of KVK in 53 districts. There are 238 districts yet to be covered with KVKs.”

2.44 In response to a query whether the existing KVKs are fully functional or not, the Department informed : “Most of the KVKs are fully functional. However, there are some KVKs where some of the infrastructure facilities are yet to be developed. Efforts are being made to develop such facilities expeditiously.”

2.45 From the information furnished by the Department the Committee note that as many as 43, out of the existing KVKs were still not fully functional and lack basic infrastructure facilities. The Department further informed as under:

“ Out of 43 KVKs, office buildings have been completed in 35 KVKs. Provision of funds are being made during Tenth Plan Period for completion of office building in the remaining KVKs and hostel and staff quarters wherever yet to be completed”

Development of Seeds

2.46 The Department had proposed several new schemes/initiatives in the 10th Plan under various sectors. One of the proposals was to establish a Directorate of Seed by upgrading the National Seed project under the Crop Science sector. The Department was asked as to how this upgradation would help in production of quality seeds for enhancing production. The Department in their reply stated as under:

“Seed is crucial, critical and vital input for enhancing production and productivity. For this enhancing capabilities of seed production and seed

technological research is essential which will undertake all basic, strategic and applied research of seed science and seed monitoring programmes. This will generate better scientific back up and information on seeds which will enhance the quality of seed for raising the production and productivity. In view of this it is absolutely essential to establish a Directorate on Seed for conducting research on various aspects of seed and coordinating research of different centers. The Directorate would require augmentation of infrastructural facilities and manpower.

The total for the National Seed Project (Crops) for the IX Plan was about Rs.34 crores. The X Plan outlay for the National Seed Project (Crops) when upgraded to the Directorate of Seed Development would be about Rs. 70 crores.”

2.47 The Department had also informed that during 2001-2002, a total of 3,064.36 tonnes of breeder seed had been produced; major quantities belonged to oilseeds (1,335.72 tonnes) and cereals (1,101.13 tonnes), followed by pulses (562.53 tonnes), forages (45.82 tonnes) and fibres (19.16 tonnes). Besides, additional breeder seed was also produced against indent of state-level varieties.

Research in the field of drought management

2.48 In view of the recent drought in the country, the Department were asked about the special research initiatives undertaken by them towards development of more varieties/hybrids of crops that are drought and disease resistant. The Department in their reply stated as under:

“Intensive efforts are on for the development of early and drought resistant varieties and hybrids in a number of crops. As a result a number of such varieties and hybrids in rice (Tulsi, Vandana, Aditya Rasi, Anjali); wheat (HUW 533, GW 332); maize (Prakash, Pusa hybrid 1, Pusa hybrid-2); Sorghum (CSH 17, CSV 15); Pearl Millet – (Nandi -8, Nandi-32); Green gram (Pusa 9531, HUM-1); groundnut (LGN-2, HNG-10); sugarcane (CO 87263, COS 95422); cotton (PK Hy 4, LAH 1) have been developed. However, further endeavours are being made to develop improved varieties and hybrids in a number of crops having resistance to drought and early maturity.

Considering the importance of diseases attempts have been made to develop varieties and hybrids in different crops specially rice, wheat, maize, pulses, oilseeds, cotton, sugarcane etc. As a result a number of hybrids and varieties with resistance to important diseases have already been released for cultivation. These

include different kinds of leaf rusts resistance in wheat; blight, blast and tungro virus resistance in rice; wilt and root rot resistance in chickpea and pigeonpea; yellow mosaic virus resistance in green gram and black gram; red rot tolerance in sugarcane and wilt, leaf blight and leaf curl virus resistance in cotton etc. However, further research efforts are in progress utilizing the biotechnological approaches alongwith conventional methods to meet these challenges.”

SUMMARY OF THE MAJOR RECOMMENDATIONS BY THE COMMITTEE SET UP BY THE DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION TO REVIEW ADMINISTRATIVE STRUCTURE OF THE ICAR AT HEADQUARTERS AND ITS LINKAGES WITH INSTITUTIONS AND SAUs

1. The composition of the Governing Body should be revised to include representatives of two State Governments, Secretary, Department of Biotechnology, Secretary, Department of Scientific and Industrial Research and Chairman, APEDA. The representation of Vice-Chancellors of SAUs and Directors of ICAR Institutes should be reduced to four from six. The tenure of members from these categories be fixed for a period of three years and the positions should be filled up by rotation. (Para 2.4).
2. An annual conference of the Agriculture Ministers of all the states should be convened under the Chairmanship of Union Agriculture Minister with the specific agenda of reviewing the research priorities of the ICAR. (Para 2.9).
3. Five of the DDGs currently at headquarters should be moved to 5 geographical regions of the country with substantial delegation of powers to handle both research and administrative issues concerning ICAR Institutes located within the region. They should be responsible for integrating the research work within the region. (Para 2.10).
4. The number of DDGs at headquarters should be frozen to 4. Thematic areas be merged into Plant Sciences, Life Sciences and Human Resources to be handled by three DDGs. The fourth DDG will be responsible for strategic planning, policy formulation and monitoring etc. The DDGs at headquarters should act as advisers to DG and deal with larger national issues concerning policy thrusts, strategic planning, interaction with external agencies, international cooperation etc in their respective sectors. They will be assisted by the ADGs for specific thematic areas. Detailed job descriptions for these position should got prepared by ICAR and if necessary, a small task force should be created for this purpose. (Para 2.11).
5. The Regional DDGs should be assisted by thematic ADGs whose specialization should depend upon the regional needs. (Para 2.12).
6. The Regional DDGs should head the Regional Committees already created by ICAR. (Para 2.13)
7. Non RMP scientists should not be posted to headquarters and existing set of such officials should be reverted to laboratories and Institutes. (Para 2.14).
8. An Executive Committee under the Chairmanship of DG, ICAR with Secretary, DoA&C or his nominee, DDGs at headquarters, a representative of DARE, Secretary, ICAR, Directors of NCAP and IASRI, one eminent scientist, a representatives of IIMs as

members and DDG (Policy & Planning) as Member-Secretary should be constituted for strategic planning, implementation and monitoring. This committee should meet once a quarter. (Para 2.16 & 3.11).

9. Marketing and IPR being important areas, should be supervised by DDG (Policy & Planning) with earmarked ADGs to handle each of the subjects and to ensure that commercialization is accorded its due priority in the organization. (Para 2.17).

10. Institutes located within the same city having same or similar mandates with independently built infrastructure should be merged. A small committee headed by an eminent scientist should be set up to examine the rationale of continuing NRCs in the present form. (Para 2.18).

11. IASRI and NCAP should be integrated/merged and assigned the role of policy adviser (Para 2.19).

12. ICAR should take an early decision on the proposals received about delegation of administrative and financial powers to IMCs, National Institutes and other Institutes. While operationalisation of the delegations, it should be ensured that delegation is precisely delineated. (Para 2.22).

13. ICAR should consider adopting CSIR model regarding performance linked budgeting with suitable modifications wherever necessary. (Para 2.23).

14. National Institutes which have a much better scope for generating resources should be mandated to generate a pre decided percentage of resources and they should be allowed to retain it over and above the budgetary allocations. (Para 2.24).

15. The National Professor Scheme should be reviewed and the necessity of continuing it should be examined. (Para 2.25).

16. The Regional DDGs may be delegated powers to approve foreign depositions in such cases where government funds are not involved, directly or indirectly, except those cases where inter-ministry coordination is necessary (Para 2.26).

17. A review should be carried out at every Institute's level to ensure that the human resources available are rationally and optimally deployed. This work could be entrusted to regional DDGs (Para 2.29)

18. The scientific monitoring of the work of ICAR Institutes should continue to be done by ICAR. ICAR should also continue to exercise administrative control over them. (Para 3.9).

19. Small teams should be constituted by the Executive Committee to make field visit to ICAR Institutes to assess the progress of scientific work and interact with farmers to

assess the impact of the work being done by the Institutes at the field level. This team should provide inputs to the Executive Committee. (Para 3.14).

20. The QRT Reports should be placed before the Executive Committee. Action Taken Report on the QRT recommendations be placed before the Governing Body. (Para 3.16).

21. The financial support from ICAR to SAUs should be raised gradually over a period of 5 years to 20 % of the funds available with ICAR. (Para 4.17)

22. The State Government should be urged to levy a 1% cess on agricultural produce marketed. The additional resources so generated should be passed on to SAUs (Para 4.18).

23. 20% of the financial assistance given by ICAR to SAUs should be linked to reforms within the SAU system. Objective criteria, which may include rationalization of structure, elimination of wastes and duplication, right sizing of staff etc should be evolved for this purpose. (Para 4.19).

24. Opening of new SAUs and creation of new facilities, bifurcation of an existing SAU etc should be strongly discouraged. There should be a moratorium on construction of new buildings in SAUs. Any new facility should be created only if State Government provides funds to meet expenses for first five years. (Para 4.21).

25. PG course in any discipline should normally run only at one place. If any SAU has it at more than one place, situation should be reviewed. If any faculty does not conform to norms, then financial support for it should be discontinued. (Para 4.22).

26. The necessity of increasing internal resource generation should be impressed upon SAUs. Possibility of increasing resource generation through selling of improved seeds, consultancy services, reserving seats for NRIs and foreign students etc should be explored. (Para 4.24).

27. SAUs should be permitted to exploit commercially technologies developed by them which are not to be directly passed on to the farmers. (Para 4.25)

28. SAUs should be asked to increase their resources by reduction in expenditure and additional resource generation by at least 5%. This can be raised to 10% after 5 years. (Para 4.27).

29. KVKs should be asked to conduct entrepreneurial development training programmes in the villages for which small registration fee could be charged from the participants. (Para 4.28).

30. It has been observed that for certain crops, AICRP, Directorate and Institutes are working with an element of duplication. In such cases AICRP should be merged with Directorate Institute. (Para 4.32)
31. The SAU extension agency and the State extension agency should have adequate linkage. The scientists of KVK should be fully involved in this. (Para 4.36)
32. ICAR should undertake systematic human resource planning exercise both at the national level and at the level of Institute. (Para 5.11)
33. The mismatch between priority research areas and the number of scientists working there in should be removed. The Institutes and the regional DDGs should be involved in such an exercise which should lead to an action plan. (Para 5.12)
34. Each Institute should prepare in advance, a one year, 5 years and 5 to 15 years plan activities in core areas. The human resource planning should correspond to these plans. (Para 5.13)
35. It is important to ensure that narrow specialization does not lead to inter-discipline segregation and proliferation of Institutes. Attempts should be made to build into disciplinary research and collaboration and integrate related areas to encourage holistic approach to problems and solutions. (Para 5.14)
36. Recruitment should be based on specific needs of the Institutes. Scientists working in areas which have ceased to be focus of work in any Institute should be relocated to such Institute where such work is of interest. (Para 5.15)
37. The centralized recruitment of scientists by ASRB should be based on the need/vacancy assessed by DDG (HR)/Institute in the context of proper human resource planning. Appropriate changes should be made from time to time in the technology/methodology as syllabi of examination conducted by ASRB to reflect the changing development agricultural sciences and priorities of ICAR and its Institutes. (Para 5.17)
38. The post of Director, NAARM, Hyderabad which is of the rank of DDG should be downgraded to the level of ADG and transferred to headquarters and renamed as DDG (Human Resources). The Director, NAARM should report to DDG (Human Resources). DDG (Human Resources) should be responsible for all human resource management functions. (Para 5.20)
39. ASRB should be restructured to serve better the goals and missions of ICAR. DDG (Human Resources) should review and evolve human resource management policies of ICAR and monitor the implementation of such policies. (Paras 5.18 and 5.21)
40. Promotions in ICAR should be based on proper assessment of performance. Flexible complementing system should be adopted once again. The serving scientists

may be given option to carry on with the present system or being covered under the flexible complementary system. (Para 5.23)

41. There should be incentive for a scientist to continue to work in research area. A cool system for scientists occupying RMP be introduced. A scientist working on RMP should be considered for another RMP after completion of tenure only if he has worked in research area for three years. (Para 5.25)

42. The draft Performance Appraisal Report developed by ICAR should be reviewed and requires changes. (Para 5.28)

43. The IVLP has performed well in some Institutes. Scientists who volunteer to work in IVLP should be suitably rewarded. (Para 5.29)

44. NAARM does not seem to meet the future requirement of training. Additional infrastructure should be created at headquarters to meet the future needs. (Para 5.30)

45. Every Institute should prepare an annual calendar of training programme for its officials to ensure that scientists and others are given training in the latest developments at sufficient intervals. The training should be linked to the goals and objectives of the Institute (Para 5.33)

46. Scientists who are chosen to take on administrative/managerial positions should be given adequate training in management skills, accounting etc. similarly all officers in the area of finance and administration should be trained to sensitize them to the specific nature of scientific administration. (Para 5.34)

47. Training in Participatory Rural Appraisal techniques should be imparted to scientists. NAARM should be equipped to handle this training. Other organizations like Centre for Rural Studies attached to LBSNAA, Mussoorie, NIRD, Hyderabad and National Centre for Values and Ethics could also be involved in imparting this training, considering the large numbers to be trained. (Para 5.35)

48. Integration of administrative and finance cadres at headquarters and field should be done. Also the two cadres should be merged. In the short run posts on administration and finance sides could be kept separate but in due course even the posts should be combined. (Para 5.39)

49. Each regional DDG should be assisted by a Director (Finance & Administration), one Deputy Secretary for Finance and one for Administration and two Under Secretary level officers. In the short run, officials from the organized service cadres within the region may be taken to fill up the post of Director. In the long run ICAR officials should be groomed for this post. (Para 5.40)

50. An experienced officer in personnel function from civil services or from within the ICAR of the rank of Director may be posted to help DDG (HR). (Para 5.41)

51. There should be accent on developing younger scientists in the ICAR. A scheme may be framed for training young scientists below 40 years of age in frontier areas of agricultural science. A minimum number of 200 such scientists should be trained over a period of 5 years. (Para 5.42)

52. The country should take steps to achieve a leadership role in frontier areas of agriculture science and technology. A world class institution in agricultural science technology should be set up. A small Task Force should be set up to give a concrete shape to this concept, working out the financial implications, method of financing, the areas of activity etc. (Para 5.43)

53. For taking decision on the recommendations of the Committee within a reasonable time frame, the report and views of DG, ICAR on the recommendations should be placed before ICAR Society within about a month. Matters requiring Cabinet approval should be put upto it within one month of the decision of the Society. (Para 6.2)

54. An institutionalized arrangement should be made for monitoring the implementation of decisions on the recommendations of the Committee. A cell under senior Director level officer be created within ICAR for this purpose. (Para 6.3).

ANNEXURE-I

DETAILS OF ALLOCATIONS MADE TO DARE/ICAR IN 2002-03 AND 2003-04

(in lakhs of Rs.)

Major Head	B.E. 2002-2003			R.E. 2002-2003			B.E. 2003-2004		
	Plan	Non – Plan	Total	Plan	Non-Plan	Total	Plan	Non-Plan	Total
3451 Secretariat – Economic Services	-	1.050	1.050	-	1.050	1.050	-	1.200	1.200
2415 Crop Husbandry	5.458	4.900	10.358	5.048	4.900	9.948	5.410	4.836	10.246
Soil & Water Conservation	60.500	68.000	128.5000	59.500	68.000	127.500	61.000	84.700	145.700
Animal Husbandry	65.500	108.500	174.000	61.500	108.500	170.000	67.000	109.500	176.500
Dairy Development	-	-	-	-	-	-	-	-	-
Fisheries	25.200	52.500	77.700	26.200	52.500	78.700	28.000	53.000	81.000
Forestry	-	-	-	-	-	-	-	-	-
Lumpsum provision for North Eastern Region	751.500	719.000	1470.500	691.505	719.000	1410.505	774.500	730.800	1505.300
Total	908.158	953.950	1862.180	843.753	953.950	1797.703	935.91	984.036	1919.946

ANNEXURE-III

SECTOR-WISE ALLOCATION/UTILISATION FOR IX PLAN AND X PLAN

(NON-PLAN)

(Rs.in crores)

Sl. No.	Name of Division	1997-98	1998-99	1999-2000	2000-2001	2001-2002	TOTAL Col.3-7	2002-03 Allocation (RE)	2003-04 Proposed
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
01.	Crop Science	99.90	135.42	161.30	164.98	179.38	740.98	186.74	166.00
02.	Animal Science	65.71	88.62	92.69	100.72	105.61	453.35	110.68	109.50
03.	NRM	40.74	56.48	57.46	62.06	71.26	288.00	77.73	84.70
04.	Horticulture	32.04	46.47	55.65	61.67	58.34	254.18	65.13	64.50
05.	Fisheries	29.39	41.29	44.71	50.74	53.73	219.86	54.64	53.00
06.	Agril. Engg.	12.51	17.72	20.15	20.60	20.60	91.58	22.53	22.00
07.	Agril. Eco. & Statistics	6.69	9.20	10.17	11.47	12.21	49.74	11.06	11.50
08.	Agril. Edn.	2.92	3.93	3.05	3.69	3.75	17.34	4.33	4.10
09.	Agril. Extn.	-	-	-	-	-	-	0.40	0.50
10.	Headquarters including ASRB & DIPA/MIS	82.47	167.58	389.32	331.74	212.99	1184.10	200.26	175.00
	TOTAL : (01- 10)	372.38	566.72	834.50	807.67	717.87	3299.14	733.50	690.80
	Actual Expenditure (01-10)	351.04	516.54	790.64	703.64	618.85	2980.71		

PART-II

RECOMMENDATIONS/OBSERVATIONS

(Recommendation No. 1)

Allocations to DARE/ICAR out of the total Plan budget of the Government of India

The Committee note that the percentage outlay earmarked for DARE/ICAR (Central Sector) during the 9th Plan was a very small fraction (ranging from 0.36 to 0.55%) of the total Plan budget of the GOI at BE level. The percentage was even less at the RE stage (between 0.36 to 0.53%). The average overall percentage during the entire 9th Plan period (1997-98 to 2001-02) comes to 0.46% only at RE level. The share of DARE/ICAR for the year 2003-04 has been reduced to 0.53%, which is less in comparison to the previous three years. The allocations for the year 2002-03 and 2003-04 have also remained static at Rs. 775 crore.

It is also noted that the percentage of DARE's actual RE with respect to Agricultural GDP varied from 0.19% in 1997-98 to 0.29% in 2000-01. The Committee have been recommending time and again that the budgetary allocations to DARE should be at least 1% of the AGDP, which may be gradually increased to 2% of the AGDP from Tenth Plan onwards. The Tenth Plan Working Group for DARE constituted by the Planning Commission had also recommended that 1% of the GDP of agriculture and allied sectors should be provided for agricultural research and education.

The Committee are distressed to note that percentage of allocations made to DARE/ICAR out of the total Plan budget of Government of India has been declining over the years, instead of increasing. Its percentage with respect to Agricultural

GDP (0.29% only in 2001-02) is also lagging way behind the 1% recommended by the Committee earlier.

The Committee, therefore, desire that the Department should forcefully present its case before the Planning Commission/Ministry of Finance for increasing their allocation at the RE stage to give a real impetus to agriculture and related activities which are the main edifice of the Indian economy. This is all the more essential in view of the present drought conditions in the country.

(Recommendation No. 2)

Financial Outlays to DARE/ICAR and allocation/utilisation of funds during the IXth Plan and first two years of the Xth Plan

DARE/ICAR was allocated a total outlay of Rs. 3376.95 crore for the IXth Plan (1997-2002) out of which the total of yearly allocations (through Annual Plans) was only Rs. 2749.37 crore which was subsequently subjected to cuts at RE stage and the total allocation was further reduced to Rs. 2514.17 crore.

For the Xth Plan, DARE/ICAR had proposed a minimum requirement of Rs. 15,000 crore along with One Time Catch Up Grant of Rs. 1000 crore. However, the Planning Commission approved only Rs. 4868 crore which was subsequently raised to Rs. 5368 crore by providing Rs. 500 crore for new KVKs.

For the Annual Plan 2002-03, the allocation was Rs. 775 crore, which was reduced to Rs. 725 crore at RE stage. For the Annual Plan 2003-04 against the projected demand of Rs. 1300 crore and a catch up grant of Rs. 200 crore, the Planning Commission allocated Rs. 775 crore only, although there was an understanding at the Department's meeting with the Planning Commission that its Plan allocation would be raised to Rs. 1000 crore.

The Committee are astonished to note that despite the understanding at the Department's meeting with the Planning Commission that its Plan allocation for the year 2003-04 would be raised to Rs. 1000 crore, only Rs. 775 crores were finally allocated. The Committee desire that the matter may be taken up immediately with the Planning Commission for enhancing the BE 2003-04 to Rs. 1000 crores, so that additional funds are made available for schemes/programmes, as per their earlier

understanding, towards achieving the target of 4% growth in agriculture in the Xth Plan.

(Recommendation No. 3)

One Time Catch Up Grant

The Department has been proposing a one time Catch up Grant since 1998-99 for modernisation of research infrastructure, replacement of obsolete equipment, etc. For the IXth Plan a grant of Rs.500 crore was proposed and for the Xth Plan, a catch up grant of Rs. 1000 crore (Rs. 200 crore each during 2002-03 and 2003-04) was proposed. However, the Department were allocated a total of Rs. 725 crore in 2002-03 (RE stage) and Rs. 775 crore in 2003-04. No separate allocation and commitment of funds under Catch Up Grant was given by the Planning Commission. The Committee are perturbed to note that despite their earlier recommendations, the Department is yet to be given the Catch Up Grant for replacement of old and obsolete equipment in the ICAR Institutes and modernisation of research infrastructure which is essential for upgrading and updating the research facilities available at these Institutes. It appears that the recommendations of the Committee are not being given due weightage by the Planning Commission/ Ministry of Finance.

The Committee once again recommend that the Planning Commission should give the Catch Up Grant to the Department to enable it to upgrade the research facilities of the ICAR Institutes to world standards and the research projects/programmes are not hampered due to paucity of funds.

(Recommendation No. 4)

Formulation/approval of new schemes/projects of DARE/ICAR

The Committee are happy to note that DARE has been able to build over the years a large network of laboratories with infrastructural facilities to promote agricultural research and education. For this purpose, a number of universities with upto-date research facilities and specialised institutions and laboratories have been set up throughout the country and they are all doing fairly good work in their own way. The Committee, however, feel that the pace of research work should be accelerated and the specialised laboratories of ICAR and the Universities should take up more serious and major challenges/problems, which Agriculture is facing today. They should also have futuristic outlook and devote attention to emerging areas in the creation of new knowledge and technology with the purpose of acquiring a leading position in agricultural science taking advantage of favourable agro-climatic conditions and availability of rich natural resources and talented manpower.

The Committee observe that a large number of research programmes in ICAR are being carried on as routine exercise for an indefinite period resulting in the wastage of resources including manpower. The Committee note that as a result of Zero Base Budgeting exercises the number of Plan projects/schemes have been reduced from 235 to 72 in the Xth Plan to re-organise different activities in

consultation with the Planning Commission. The Committee have been informed that such integration is expected to facilitate the expeditious clearance of EFC/SFC during the 10th Plan. The Committee welcome the idea, but would like to observe that reduction of number of projects should not be for administrative considerations but should be on the basis of scientific evaluation of the projects and their potential. The Committee would like to emphasize that every research project should be well conceived and formulated after a great deal of deliberations and when a programme is started it must be completed within the prescribed time-frame. The progress of the project should be critically reviewed at regular intervals to ensure its successful completion within the time-frame and midterm corrections made whenever and wherever necessary.

The Department had informed that out of 25 Plan projects/schemes sent for appraisal to SFC, 16 proposals have already been sent for appraisal to the Planning Commission and the Ministry of Finance, etc. Similarly, 14 out of 46 EFC cases have also been sent to the appraisal agencies. After getting the formal comments / in principle approval from Planning Commission over the proposals already sent, the Department would fix the date(s) for the respective SFC/EFC clearance followed by approval of the Agriculture Minister/Finance Minister. In case of EFC exceeding Rs. 100 crore, approval of the Cabinet Committee on Economic Affairs (CCEA) would also be required. The Department anticipate to accomplish the clearance of SFC/EFC proposals by the end of 2003-04.

The Committee are surprised to note that clearances of appropriate authorities are still required in as many as 30 out of 72 cases. The clearances are

likely to be accomplished by the end of 2003-04, i.e. after completion of 3 years of the current Xth Plan. The sanction letters for the schemes would be issued by the concerned Subject Divisions of the Department only after the approval of the Competent Authorities in the Department.

The Committee desire to know the reasons for the late formulation and submission of EFC/SFC proposals for approval. As a result of these late approvals, funds for various schemes/projects are not likely to be released in time, which may suffer on this account.

The Committee, therefore, recommend that the machinery available with the Department/ICAR in regard to formulation of projects/schemes should be geared up in order to present them for timely approval of the Planning Commission/Ministry of Finance. This will, in the opinion of the Committee, enable the DARE/ICAR to launch their projects/schemes in the very first year of the Five Year Plan.

(Recommendation No. 5)

New Initiatives in the emerging areas of research

The Committee note that out of the six new Initiatives/Projects proposed by DARE/ICAR during the Xth Plan, proposals in respect of two projects (Network on Transgencies and Network on Insect Bio-systematics) are under formulation, one is under consideration of the Planning Commission, and one has not been agreed to by the Planning Commission. In case of two Institutions/Projects, the Planning Commission has suggested that the activity may be taken up in some existing Institute (s) of ICAR/DAC, which have since been identified by the Department.

While the objectives of the projects are laudable, the Committee regret to note that some of the projects are still at the formulation/approval stage. In view of the contemporary relevance and importance of the projects, the Committee recommend that the matter may be pursued vigorously with the Planning Commission and other concerned agencies for early approval of the projects. Although Rs. 35.00 crores were allocated by the Department for New Initiatives/Pipeline Projects during 2002-03 and Rs. 139.18 crore were proposed for 2003-04, no money could be spent due to non-clearance by the Planning Commission. The Committee regret to note that on account of financial constraints, no new initiatives could be undertaken by DARE/ICAR, which reflects on the sorry state of affairs in the Department.

The Department had earlier sought funds in 2002-03 for four Core Areas of agricultural research and education, viz. Agricultural Bio-technology; Bio-diversity; Bio-systematics and pest disease and weed management; and first rate Human Resource Development. However, the Department could not get any separate/additional funds for these Core Areas. It appears that the Department did not present its case effectively before the Planning Commission for getting these funds. The Committee, therefore, recommend that the Department should again approach the Planning Commission for getting the funds for these crucial areas in its 2003-04 Plan outlay. They also desire that the DARE/ICAR should lay more emphasis on emerging areas of research and present their case more forcefully during RE 2003-2004 and the subsequent years of the 10th Plan. In the opinion of the Committee, unless the DARE/ICAR strive harder to got a break through in the emerging areas of research, the objective of doubling the food production of the country will remain only a dream.

Recommendation No. 6

Functioning of the ICAR and its Institutes

The Committee had recommended in 2001 and again in 2002 that an independent body of agricultural and scientific experts should be constituted to evaluate the worth of research conducted in ICAR Institutes. However, after a lot of dithering, the Department finally asked the National Productivity Council (NPC) to evaluate the worth of research conducted by ICAR vis-à-vis the expenditure incurred. The NPC team visited two ICAR Institutes in Karnal and submitted their proposals to the Department. After examination of the proposals, the Department decided that NPC should come up with a revised module after discussing the matter threadbare with the concerned scientific experts. The NPC propose to complete the study within a period of 6 months.

The Committee are disappointed to note that even after a lapse of more than two years, the work relating to the study is still in a nascent stage. The Committee are surprised to learn that the NPC team submitted their report to the Department after visiting only two Institutes of the ICAR and that too in the same city. The ICAR Institutes conduct multi-disciplinary research activities and each Institute has its own specific problems. The Committee, therefore, fail to understand as to how the NPC team could generalize and submit their report based on their visit to two Institutes only at random.

The Committee recommend that evaluation work may be taken up in right earnest and a report thereon be submitted within a period of six months. DARE/ICAR may like to modify their plans/strategies in the light of the report submitted by the NPC. The NPC team may be asked to visit as many Institutes of the ICAR as practicable in different regions of the country before arriving at any conclusions.

The Committee further note that, the Department had constituted a Committee in August, 2002 to review the Administrative Structure of the ICAR at Headquarters and its Linkages with Institutions and SAUs. The Committee had since given its report, which was under examination by the Department.

The Committee find that the ICAR has been reviewed nine times during the past 27 years. Frequent reviews and restructuring on the basis of each review disturbs the functioning of a Scientific Organisation with a network of Institutions and Laboratories throughout the country. A scientific project, unlike an administrative or financial job, requires concerted efforts to build a nucleus of scientific workers over a period of time, keeping in view the aims and objectives of the project. From this point of view and considering the present ICAR set-up and its working so far, the Committee feel that the constitution of the Review Committee with predominance of bureaucrats was not called for.

The suggested composition of the Governing Body is seriously open to criticism. Renowned Scientists and Educationists should play a dominant role in the

Governing Body of ICAR. However, the Review Committee in its wisdom has recommended that the number of Vice Chancellors and Directors in the Governing Body be reduced from six to four (para 2.4 of the Report) and representation of bureaucrats enhanced. This is contrary to the Government's avowed policy of de-bureaucratization of scientific departments. During early seventies a deliberate decision was taken by the Government to establish a separate Department of Agricultural Research and Education under the Ministry of Agriculture manned by agricultural scientists and technical experts so that full impact of agricultural science and technology could be utilized for the advancement of agriculture. Therefore, bureaucratization of the only scientific Organisation under the Ministry of Agriculture, i.e. ICAR, will be a negation of the well-established policy of the Government.

However, since the Committee has already submitted its Report, the Committee desire that appropriate action may be taken on the recommendations of the Committee at the earliest, safeguarding interests of all affected persons like scientists, administrators, employees, etc.

(Recommendation No. 7)

Externally Aided Projects (EAPs)

(A) National Agricultural Technology Project (NATP)

The World Bank aided National Agricultural Technology Project (NATP) would terminate in December, 2003 after completion of 5 years. Many diverse activities were being implemented under the project to improve the relevance of technology generation, refinement, assessment and transfer programmes to the changing needs of farmers and processors to address key national priorities of food security, economic growth, alleviation of rural poverty and the conservation of natural resources.

The Committee note that there have been a number of achievements under the three components of NATP, viz. Agro-ecosystem research, Innovation Technology Dissemination (ITD) and Organisation & Management (O&M). To further consolidate the gains of the Project, the Committee feel that either the present Project should continue beyond December, 2003, or a similar programme should be started.

The Committee, therefore, recommend that talks may be opened with the World Bank urgently to extend the NATP for a further period of 1-2 years. In case that is not feasible on favourable terms and conditions another similar Project/Programme, either independently or with foreign assistance/aid, may be started from January, 2004 so that the momentum gained during the NATP is not lost.

(B) Seabass Breeding and Cage Culture

The Committee note that during the first meeting of the Indo-French Working Group on Cooperation in the field of Agriculture and Agro Food Industries held in November, 1994, Breeding and culture of seabass was identified as one of the collaborative programmes.

The Committee are surprised to note that till date only earth filling work has been completed and infrastructural facilities for the project are yet to be established, necessitating extension of the project duration till June, 2003. The Committee deplore the lackadaisical approach of the Department resulting in avoidable delay of the Project. According to the Committee, delay in project causes huge financial escalation as well as shows the DARE/ICAR in a very poor light in the eyes of the foreign collaborators.

(Recommendation No. 8)

Krishi Vigyan Kendras

The purpose of Krishi Vigyan Kendras (KVKs) is agricultural extension and transfer of technology to the farmers through education and training. The Committee note that out of 585 districts in the country, 238 districts are yet to be covered with KVKs. According to the information furnished by the Department, out of the existing KVKs, 43 are such where infrastructural facilities like office building, hostel, staff quarters, etc. are yet to be developed.

The Committee are surprised to learn that the oldest KVK in the country, which was established at Karaikal, Pondicherry in 1974, still does not have an Administrative building, hostel and staff quarters. Certain other KVKs which were established in the seventies and eighties also lack the basic infrastructural facilities.

The Committee, therefore, desire that priority should be given to completion of infrastructural facilities in the existing KVKs, so that they become fully functional and are able to effectively help and educate the farmers in reaping the benefits of new technologies in agriculture. The objective of establishing one KVK in each district may also be pursued depending upon the availability of funds. Meanwhile, the Department may impress upon the Planning Commission/Ministry of Finance to release the funds for which a provision of Rs. 500 crore during the Xth Plan has already been made. The Committee feel that the expenditure on KVKs will be justified only if they are fully utilized as an effective instrument for

agricultural development in their respective areas. The success of KVKs will be assured if they are able to provide facilities for testing of soil, early detection of diseases to save the crop, tender advice regarding the use of fertilizers and techniques for increased yield of crops, specially the use of new varieties of seeds and plant material and play the role of a friend, philosopher and guide to the farmers. In the opinion of the Committee, the KVKs should keep themselves abreast of the local needs by keeping in constant touch with Panchayats at village and district levels and Zila Parishads.

(Recommendation No. 9)

Development of Seeds

One of the greatest handicaps which Indian agriculturists are facing today is supply of good quality seeds, which are essential for improving quality and increasing output of agricultural production for domestic consumption and export. There is a great potential for production of quality seeds in the country. The Committee feel that although good quality seeds are produced to some extent in the country but they fall short of requirement and also are not of assured quality.

The Committee find that India is rich in bio-diversity and has large quantities of genomic material available, which can be utilised for producing new varieties of seeds and plants with high yields and disease-resistant properties. This is possible by using modern techniques of molecular biology and genetic engineering to produce better quality of seeds, specially in relation to important agricultural crops like cotton, wheat, rice, etc. There is also great scope of producing good quality seeds and plants through the conventional methods of hybridisation because of the availability of genomic material, qualified technical manpower and good agro-climatic conditions. Thus production of seeds is an area in which India can effectively and fully meet domestic requirements and compete with multi-nationals in the export of good quality seeds.

The Committee hope that with the establishment of a Directorate of Seed, the ICAR would be able to concentrate its research efforts in this area so that India can become a major producer and exporter of high quality seeds and plants.

(Recommendation No. 10)

Research in the field of drought management

The Committee are happy to note that ICAR Institutes have done a lot of research and development on varieties/hybrids of crops that are drought and disease resistant. However, a lot remains to be done in this field especially, in view of the recent severe drought in the country as well as frequent droughts in some parts of the country every year, given the dependence of the poor farmers of the country on the vagaries of monsoon, it is all the more necessary that the ICAR should focus its attention on this very vital and crucial sector of research.

The Committee desire that the Department should take immediate necessary steps to develop drought and decrease resistant varieties/hybrids of crops and their easy availability to the farmers throughout the country especially in the areas affected by droughts frequently.

**MINUTES OF THE EIGHTH SITTING OF THE PARLIAMENTARY
STANDING COMMITTEE ON AGRICULTURE HELD ON TUESDAY, 25
MARCH, 2003 IN COMMITTEE ROOM 'C', PARLIAMENT HOUSE ANNEXE,
NEW DELHI**

The Committee sat from 1100 hrs. to 1330 hrs.

PRESENT

Shri S.S. Palanimanickam – Chairman

MEMBERS

LOK SABHA

2. Prof. S.P. Singh Baghel
3. Shri Bhan Singh Bhaura
4. Shri Ambati Brahmaniah
5. Shri Ram Tahal Chaudhari
6. Shri Thawar Chand Gehlot
7. Shri Raghunath Jha
8. Shri M. Master Mathan
9. Shri Tarachand Shivaji Patel
10. Smt. Rama Pilot
11. Smt. Prabha Rau
12. Shri Laxman Singh
13. Shri Ramjiwan Singh
14. Shri Punjaji Sadaji Thakor
15. Shri Mahboob Zahedi

RAJYA SABHA

16. Dr. A. R. Kidwai
17. Shri Oscar Fernandes
18. Smt. Jamana Devi Barupal
19. Prof. R.B.S. Varma
20. Shri Sudarashan Akarapu
21. Dr. Swami Sakshi Ji Maharaj
22. Shri R.Kamaraj
23. Shri Gandhi Azad
24. Shri H.K. Javare Gowda

SECRETARIAT

- | | | | |
|----|-------------------------|---|------------------|
| 1. | Shri S.K. Sharma | - | Joint Secretary |
| 2. | Shri Raj Shekhar Sharma | - | Deputy Secretary |
| 3. | Shri Hardev Singh | - | Under Secretary |
| 4. | Smt. Anita Jain | - | Under Secretary |

WITNESSES

- | | | | |
|-----|-------------------|---|---|
| 1. | Dr. Mangala Rai | - | Secretary, DARE & DG, ICAR |
| 2. | Ms. Shashi Misra | - | Addl. Secretary, DARE & Secretary, ICAR |
| 3. | Shri Gautam Basu | - | Additional Secretary & F.A. |
| 4. | Dr. S.Ayyapan | - | Deputy Director General (Fy.) |
| 5. | Dr. P.Das | - | Deputy Director General (AE) |
| 6. | Dr. J.C. Katyal | - | Deputy Director General (Edn) |
| 7. | Dr. J.S. Samra | - | Deputy Director General (NRM) |
| 8. | Dr. V.K.Taneja | - | Deputy Director General (AS) |
| 9. | Dr. A. Alam | - | Deputy Director General (Engg.) |
| 10. | Dr. S.L. Mehta | - | National Director, NATP |
| 11. | Shri K.N. Kumar | - | Director (DARE) |
| 12. | Shri B.L. Jangira | - | Director (Fin.) |

At the outset, the Hon'ble Chairman, Parliamentary Standing Committee on Agriculture welcomed the Hon'ble Members and representatives of the Department of Agricultural Research and Education to the sitting of the Committee. After introductions, the Secretary, DARE and DG, ICAR was asked to give a brief presentation about the activities of DARE/ICAR. The Secretary informed that the ICAR is basically mandated for doing research and developing technologies befitting the requirements of different regions, situations and systems and the emphasis of the Department was on collection,

conservation, evaluation, documentation and utilisation of plant, animal, fish and micro-genetic resources. He also informed that over 80 improved varieties of hybrids of different crops and commodities have been evolved and progress made in the natural resource, animal, fishery, education, education sectors, etc. He also apprised the Committee about the emphasis being laid on breeder seed production and role of KVKs in development of agricultural activities, etc.

2. The Hon'ble Chairman and members of the Committee raised several questions regarding effect of the present drought on agricultural production, development of seed varieties to combat drought, non-availability of good quality seeds to farmers, effect of WTO on Indian Agriculture, poor quality of sugar produced from sugar-cane, organic farming, exploitation of rural bio-diversity of the country, etc. The representatives of the Ministry replied to the queries one by one.

3. A verbatim record of the proceeding has been kept.

4. The witnesses then withdrew.

5. The Committee then adjourned.

**MINUTES OF THE FOURTEENTH SITTING OF THE PARLIAMENTARY
STANDING COMMITTEE ON AGRICULTURE HELD ON MONDAY, 21
APRIL, 2003 IN COMMITTEE ROOM 'B', PARLIAMENT HOUSE ANNEXE,
NEW DELHI**

The Committee sat from 1500 hrs. to 1650 hrs.

PRESENT

Shri S.S. Palanimanickam – Chairman

MEMBERS

LOK SABHA

2. Shri Shivraj Singh Chouhan
3. Shri Thawar Chand Gehlot
4. Shri Raghunath Jha
5. Shri M. Master Mathan
6. Shri Jaisingrao Gaikwad Patil
7. Smt. Rama Pilot
8. Smt. Prabha Rau
9. Shri Laxman Singh
10. Shri Rampal Singh
11. Shri Tarlochan Singh Tur
12. Shri Chintaman Wanaga
13. Shri Mahboob Zahedi

RAJYA SABHA

14. Dr. A.R. Kidwai
15. Shri Oscar Fernandes
16. Smt. Jamana Devi Barupal
17. Shri Gandhi Azad
18. Shri Rao Man Singh
19. Shri H.K. Javare Gowda

Secretariat

- | | | | |
|----|--------------------|---|----------------------|
| 1. | Shri P.D.T. Achary | - | Additional Secretary |
| 2. | Shri S.K. Sharma | - | Joint Secretary |
| 3. | Shri Hardev Singh | - | Under Secretary |
| 4. | Smt. Anita Jain | - | Under Secretary |

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At the outset, the Hon'ble Chairman, Standing Committee on Agriculture welcomed the Members to the sitting of the Committee. Thereafter, the Committee took up for consideration the draft 41st and 42nd Reports on Demands for Grants (2003-04) of the Ministry of Agriculture (Department of Agricultural Research and Education) and Ministry of Agriculture (Department of Animal Husbandry and Dairying), respectively, for consideration.

The Committee considered the draft Reports and adopted them with some additions/modifications.

The Committee then authorised the Chairman to finalise the Reports and present them to the House on a date and time convenient to him.

The Committee then adjourned.