TWENTY SIXTH REPORT

STANDING COMMITTEE ON AGRICULTURE (2015-2016)

(SIXTEENTH LOK SABHA)

MINISTRY OF AGRICULTURE
(DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION)

DEMANDS FOR GRANTS (2016-2017)

Presented to Lok Sabha on 02.05.2016 Laid on the Table of Rajya Sabha on 02.05.2016



LOK SABHA SECRETARIAT NEW DELHI

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COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE (2015-2016)

Shri Hukm Deo Narayan Yadav — Chairperson

MEMBERS

Lok Sabha

- 2. Prof. Ravindra Vishwanath Gaikwad
- 3. Shri Sanganna Karadi
- 4. Shri Nalin Kumar Kateel
- *5. Smt. Raksha Nikhil Khadse
- 6. Md. Badaruddoza Khan
- 7. Shri C. Mahendran
- 8. Dr. Tapas Mandal
- 9. Shri Janardan Mishra
- 10. Shri Ajay Nishad
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- 13. Shri Mukesh Rajput
- 14. Shri Konakalla Narayana Rao
- 15. Shri C.L. Ruala
- 16. Shri Arjun Charan Sethi
- 17. Shri Satyapal Singh (Sambhal)
- 18. Shri Virendra Singh
- 19. Shri Dharmendra Yadav
- 20. Shri Jai Prakash Narayan Yadav
- 21. Shri B.S. Yeddyurappa

Rajya Sabha

- 22. Shri A.W. Rabi Bernard
- 23. Shrimati Renuka Chowdhury
- #24. Vacant
- 25. Shri Janardan Dwivedi

- 26. Shri Vinay Katiyar
- 27. Shri Mohd. Ali Khan
- 28. Shri Rajpal Singh Saini
- 29. Shri Ram Nath Thakur
- 30. Shri Shankarbhai N. Vegad
- 31. Shri Darshan Singh Yadav

SECRETARIAT

1. Shri U.B.S. Negi — Joint Secretary

2. Shri Arun K. Kaushik - Director

3. Smt. Juby Amar – Additional Director
 4. Shri Sumesh Kumar – Under Secretary

^{*} Nominated to the Committee w.e.f. 13.04.2016 *vice* Prof. Richard Hay who ceased to be the Member of the Committee w.e.f. 13.04.2016.

[#] Vice Sardar Sukhdev Singh Dhindsa who ceased to be the Member of the Committee consequent upon his retirement from Rajya Sabha w.e.f. 09.04.2016.

INTRODUCTION

- I, the Chairperson, Standing Committee on Agriculture, having been authorized by the Committee to submit the Report on their behalf, present this Twenty Sixth Report on the Demands for Grants (2016-2017) of the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research & Education).
- 2. The Committee under Rule 331E (1)(a) of the Rules of Procedure considered the Demands for Grants (2016-17) of the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research & Education) which were laid in Lok Sabha on 11.03.2016. The Committee took evidence of the representatives of the Department of Agricultural Research & Education, at their sitting held on 28.03.2016. The Report was considered and adopted by the Committee at their sitting held on 28.04.2016.
- 3. For facility of reference, the observations/recommendations of the Committee have been printed in bold at Part-II of the Report.
- 4. The Committee wish to express their thanks to the officials of the Ministry of Agriculture (Department of Agricultural Research & Education) for placing before them the requisite material and their considered views in connection with the examination of the subject.
- 5. The Committee would also like to place on record their deep sense of appreciation for the invaluable assistance rendered to them by the officials of Lok Sabha Secretariat attached to the Committee.

New Delhi; 28 April, 2016 08 Vaisakha, 1938 (Saka)

HUKM DEO NARAYAN YADAV, Chairperson, Standing Committee on Agriculture.

ABBREVIATIONS

AgGDP Agricultural Gross Domestic Product

AICRP All India Coordinated Research Project

AICRPAM All India Coordinated Research Project on

Agrometerology

AICRPDA All India Coordinated Research Project on Dryland

Agriculture

AINP All India Network Project

ARYA Attracting & Retaining Youth in Agriculture

BAU Birsa Agricultural University
B & CM Budget and Cash Management

BE Budget Estimates

BGRI Borlaug Global Rust Initiative
CAO Central Agricultural Officer
CAU Central Agricultural University

CIAE Central Institute of Agricultural Engineering
CIFE Central Institute of Fisheries Education
CPCRI Central Plantation Crops Research Institute

CRIJAF Central Research Institute on Jute and Allied Fibers

CU Central University

DARE Department of Agricultural Research & Education

DoAC & FW Department of Agriculture, Cooperation and Farmers

Welfare

DKMA Directorate of Knowledge Management in Agriculture

EEZ Exclusive Economic Zone

EFC/SFC Expenditure Finance Committee/Standing Finance

Committee

FY Financial Year FYP Five Year Plan

GDP Gross Domestic Product GHG Green House Gases

GMO Genetically Modified Organisms

ICAR Indian Council of Agricultural Research

IIPR Indian Institute of Pulses Research
IISR Indian Institute of Sugarcane Research

IISS Indian Institute of Soil Science

IO Inquiry Officer

IVRI Indian Veterinary Research Institute

IYP International Year of Pulses

KVKs Krishi Vigyan Kendras

MPKV, Rahuri Mahatama Phule Krishi Vidyapeeth, Rahuri

MSP Minimum Support Price

MT Metric Tonnes MW Mega Watt

NARS National Agriculture Research System

NBPGR National Bureau of Plant Genetic Resources

NEH North East and Himalayan Region
NGO Non-Governmental Organization
NFSM National Food Security Mission

NICRA National Initiative on Climate Resilient Agriculture
NISAGENET National Information System on Agricultural Education

Network

NRM Natural Resource Management

OSD Officer on Special Duty
OTA Over Time Allowances

PAU Punjab Agriculture University

PJTSAU Professor Jayashankar Telangana State Agricultural

University

PMKSY Pradhan Mantri Krishi Sinchai Yojana

PO Presenting Officer

PSUs Public Sector Undertakings

Q-4 Quarter-4

R&D Research and Development

RE Revised Estimates

SAU State Agricultural Universities
SMSs Short Messaging Services

TNAU Tamil Nadu Agriculture University

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REPORT

PART I

CHAPTER I

IMPLEMENTATION OF THE COMMITTEE'S RECOMMENDATIONS

The Tenth Report of the Committee on Agriculture on Demands for Grants (2015-16) of the Ministry of Agriculture (Department of Agricultural Research & Education) was presented to Lok Sabha and laid on the Table of Rajya Sabha on 27 April, 2015. The Report contained 23 Observations/Recommendations.

- 1.2 The Minister concerned is required to make Statement under Direction 73-A of Directions by the Speaker, Lok Sabha about the status of implementation of Recommendations contained in the Original Report of the Committee within six months of presentation of the Report to the Parliament. The Minister of State in the Ministry of Agriculture on behalf of the Minister of Agriculture made the Statement under Direction 73-A in the context of the Tenth Report on 04 August, 2015.
- 1.3 On the basis of the Action Taken Notes received from the Department of Agricultural Research & Education in respect of the Tenth Report, the Committee presented their Twentieth Report to the Lok Sabha and laid on the Table of Rajya Sabha on 16 December, 2015. The Committee commented on the Action Taken Notes furnished by the Department in respect of recommendations at serial nos. 4, 9, 12, 13, 16, 17, 18, 19, 22 and 23 of the Tenth Report. An analysis of the Action Taken Notes revealed that the Government have accepted 78.26% Recommendations of the Committee. 8.68% Recommendations on which replies of the Government have not been accepted by the Committee thus requiring reiteration. Replies in case of 8.68% Recommendations are of interim nature and rest 4.34% recommendations were decided to not to be pursued in view of the Government's reply.

CHAPTER II

ANALYSIS OF DEMANDS

(1) INTRODUCTORY

Agriculture in India accounts for over 19% of the GDP and 12% of the country's exports providing employment to over 50% of the work force. It has always been endeavour of every society of world to devise better varieties, processes and ways to improve production, productivity and quality of agricultural produce so that growth in agriculture keep pace with the population growth for not only sustainable food security but also for ensuring revenue from exports of surplus. Therefore, it becomes imperative to engage substantial resources, financial as well as human, for research & development for agriculture. It is essential that through research in agriculture new frontiers of science and knowledge for farmer's progress and productivity are explored. Through technologies, interventions and trained human resources, they can have a vibrant, responsive and resilient agriculture.

- 2.2 Department of Agricultural Research and Education (DARE) under the Ministry of Agriculture is the nodal department at Central level to coordinate activities for research and development in agriculture. Indian Council of Agricultural Research (ICAR) is the agency which is responsible for spearheading the work for research & development. DARE provides Government linkages to Indian Council of Agricultural Research (ICAR) under the administrative control of DARE. ICAR is an apex and scientific organization at national level with a strong agricultural research system, has a wide network of Institutes spread throughout the country and well-established institutional linkages with the State Agricultural Universities and other departments of the Central and State Governments.
- 2.3 The ICAR is committed to promote sustainable and inclusive agricultural growth and development in the country by interfacing education, research and frontline extension initiatives complemented with efficient and effective institutional, infrastructure and policy support, for ensuring livelihood and environmental security. The ICAR is oriented to attain their objectives with the network of 67 Institutes including 4 Deemed Universities, 15 National Research Centres, 14 Directorates, 6 National Bureaux, 56 All India Coordinated Research Projects (AICRPs), 25 Network projects, 73 State and Central Agricultural Universities including one deemed University (Sam Higginbottom Institute of Agriculture, Technology and Sciences) and 643 Krishi Vigyan Kendras. 52 Institutes of ICAR are doing research & development in eight Subject Matter namely Crop Science, Natural Resources Management, Horticulture Sciences, Animal Science, Fisheries Sciences, Agricultural

Engineering, Agricultural Education and Agricultural Extension. These institutes are entrusted with the overall responsibility for the preparation, scrutiny, review and technical supervision and guidance of the research schemes, educational programmes and projects within their respective disciplines.

(2) BUDGETARY ALLOCATION - TWELFTH PLAN

2.4 The Twelfth Plan Outlay earmarked for the DARE is Rs. 25553.00 crore. It has been observed that outlay of only 69.42% allocations (BE) have been made during all five fiscals as against earmarked outlays for XII plan. It has been further observed that allocations (BE) has been drastically reduced at RE stage in first four financial years. Allocations to the Department in first four financial years (RE) is only 41.56% of XII plan. Details of allocations and expenditure during Twelfth Plan under Plan head of the Department are as follows:—

Year	Budget Estimates		Revised Estimates			Expenditure			
XII Plan	DARE	ICAR	Total	DARE	ICAR	Total	DARE	ICAR	Total
2012-13	156.00	3064.00	3220.00	206.50	2313.50	2520.00	85.59	2289.14	2374.73
2013-14	180.00	3235.00	3415.00	120.02	2479.98	2600.00	119.99	2349.18	2469.17
2014-15	190.00	3525.00	3715.00	154.01	2345.99	2500.00	119.21	2149.36	2268.57
2015-16	198.00	3493.00	3691.00	189.00	2811.00	3000.00	112.31*	1622.51*	1734.82*
2016-17	300.00	3400.00	3700.00	-			-		-
Total	1624.00	16717.00	17741.00	669.53	9950.47	10620.00	437.1	8410.19	8847.29

^{*}Actual Expenditure upto 31 December, 2015.

2.5 When asked to furnish average allocations of other Ministries/Departments against earmarked outlays for XII plan, the Department have stated that the XII-Plan allocations (BEs) with respect to the total XII Plan outlay in the form of percentage in respect of the other scientific Ministries/Departments as well as other related ones is as under:—

Ministry/Department	XII FYP earmarked Outlay (Rs. in cr.)	Total XII FYP allocations (BEs) (Rs. in cr.)	Avg. XII FYP allocations (BEs) (Rs. in cr.)	Percentage of XII FYP allocations with respect to XII Plan earmarked outlay
1	2	3	4	5
D/o Agriculture and Cooperation	71500	48289	9657.8	67.54%

1	2	3	4	5
D/o Agricultural Research and Education	25553	17741	3548.2	69.43%
D/o Animal Husbandry, Dairying and Fisheries	14179	7259	1451.8	51.20%
D/o Science and Technology	21596	15780	3156	73.07%
D/o Scientific and Industrial Research	17896	10707	2141.4	59.83%
D/o Biotechnology	11804	7877	1575.4	66.73%
D/o Space	39750	29230	5846	73.53%
D/o Atomic Energy	107187	69828	13965.6	65.15%
Ministry of Earth Sciences	9506	6222	1244.4	65.45%
Ministry of Environment and Forests	17874	8169	1633.8	45.70%
Ministry of Food Processing Industries	5990	3038	607.6	50.72%
Ministry of Water Resources	18118	11718	2343.6	64.68%

Source: (i) Planning Commission's Twelfth Five Year Plan (2012-17)

2.6 The Department have also stated that from the above table it is gathered that the XII Five Year Plan allocations as percentage of XII Plan earmarked outlay of other scientific Ministries/Departments and related ones range in between 45.70% to 73.53%.

2.7 When enquired about funds proposed by the DARE for 2016-17, the Department have stated that an amount of Rs. 6952.24 crore was proposed to the Ministry of Finance as Plan BE 2016-17 for DARE. On the query of the Committee regarding impact of reduced allocations on research and extension activities envisaged by the ICAR for XII Plan, the Department have stated that they are making efforts to ensure that activities/programmes of high priority do not suffer due to reduced

⁽ii) Budget at Glance 2013-14, 2014-15, 2015-16 and 2016-17

allocations during the first four years of the XII Five Year Plan. The department is also making all out efforts to achieve the set physical targets and set its priorities according to the leftover fund (out of XII Plan) during 2016-17.

(3) ANALYSIS OF DEMAND

2.8 Demand No. 2 pertaining to the Department of Agricultural Research & Education for the year 2016-17 was presented to the Lok Sabha on 11 March, 2016. Allocations proposed for 2016-17 and actual expenditure during the years 2014-15 and 2015-16 are as follows:—

(Rs. in crore)

Sl.	Department		2014-15			2015-16		2016-17
No.		BE	RE	ΑE	BE	RE	AE*	BE
				PLAN				
1.	DARE	190.00	154.01	119.21	198.00	189.00	112.31	300.00
2.	ICAR	3525.00	2345.99	2149.36	3493.00	2811.00	1622.51	3400.00
	Total	3715.00	2500.00	2268.57	3691.00	3000.00	1734.82	3700.00

^{*}Expenditure upto 31 Dec., 2015.

2.9 When asked about the reasons for drastic reduction of 18.72% of allocations to the Department during 2015-16 at RE stage, the Department have stated that drastic cut in the allocation of the Department in RE 2015-16 was apparently due to the overall reduction effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR in RE 2015-16.

2.10 On the above issue, the Secretary of the Department stated as under:—

"हमें जो बजट एस्टिमेट मिलता है, उससे 20 से 30 प्रतिशत कटौती होती है। जो हमें आरई मिलता है, उसमें हम 95 प्रतिशत से ऊपर खर्च करते हैं जिसका हमारा पूरा हिसाब है। सारे संस्थान का और परिषद् में जो डेयर है, बाकी सब मिलाकर 95 प्रतिशत से ऊपर हम खर्च करते हैं। 2012-13 में हमें 2520 करोड़ रुपये मिले थे। उसमें से 2374.73 करोड़ रुपये हमने खर्च किये हैं। यह 94.24 परसेंट होता है। इसी तरह से प्रतिवर्ष 90 प्रतिशत से ऊपर ही होता है। कहीं थोड़ा बहुत वेरियेशन रहता है लेकिन उतना ही हम इस्तेमाल करते हैं।"

2.11 Further elaborating on the above issue, the representative of the Department stated as under:—

''सभापित जी. आज स्टैंडिंग कमेटी 'डेयर' के लिए बैठी है और इसमें हम जो खर्चा करते हैं, उसका खर्चा मोस्टली आई.सी.ए.आर. के माध्यम से होता है और दो सैन्ट्रल यूनिवर्सिटीज हैं। कुछ पैसा हम राज्य सरकार के कृषि विश्वविद्यालयों को भी देते हैं, आईसीएआर के माध्यम से। सामान्यतया आप सब जानते होंगे कि जो बजट एस्टिमेट होता है, उसके बाद रिवाइज्ड एस्टिमेट में कमी होती है। उसका मूल कारण यह होता है कि जिस स्टेज पर वित्त मंत्रालय डिस्कशन करता है, जो उस विभाग का खर्चा हुआ, वह एक कारण होता है और जो पूरे देश की राशि की उपलब्धता होती है, यह दो मुख्य कारण होते हैं। हमने जो एनालिसेज किया है, सामान्यत: 2012-13 में 21 प्रतिशत की कमी आई थी, बजट एस्टिमेट और रिवाइज्ड एस्टिमेट में। 2013-14 में 23 प्रतिशत की कमी आई और 2014-15 में 90 प्रतिशत की कमी आई, जबिक 2015-16 में यह कमी मात्र 18 प्रतिशत है। जबिक हमारी यह कोशिश होनी चाहिए कि बजट एस्टिमेट से रिवाइण्ड एस्टिमेट स्टेज पर हमारा एलोकेशन वही रहे। हमारा जो खर्चा है, सामान्यतया यद्यपि कृषि विभाग की राशि राज्य सरकारों के माध्यम से खर्च होती है। हमारा या तो अपने इंस्टीट्यूशंस के माध्यम से होता है या जहां पर हम अपने इंस्टीट्यूशंस के माध्यम से नहीं खर्च करते हैं, वहां राज्य सरकार के कृषि विश्वविद्यालयों के माध्यम से, कृषि विज्ञान केन्द्रों के माध्यम से खर्च करते हैं। हमारा जो खर्चा है, यह एक्चुअल यूटीलाइजेशन हमारे अपने इंस्टीट्यूट्स या राज्य के जो कृषि विश्वविद्यालय हैं, उनके द्वारा यूटीलाइजेशन सर्टीफिकेट मांगकर हम करते हैं। सामान्यतया हमारा, जैसा कि सैक्रेटरी, डेयर ने बताया कि यह 90 से 95 परसेंट की रेंज में डिफरेंट सालों में रहा है। इस बार भी हम सब की कोशिश होगी, अभी आज के दिन में हमारी जो फीगर थी, इस साल तीन हजार करोड जो पिछले वर्षों में था...''

2.12 On the query of the Committee regarding impact of reduced allocations on implementation of various schemes and Research & Development work in ICAR institutions, the department have stated that they have ensured that the major programmes/activities falling in the mandate of the each Subject-Matter Division were not impacted by the cut. This was made possible through some sustained efforts made by all the constituent units falling under the purview of the various Subject-Matter Divisions and some strategic planning. To offset reduction in the allocation given to the department in the RE 2015-16, the priorities were assigned to the ongoing research programmes and adequate funds were allocated from the available budget of the department for this purpose in order to accomplish the research targets set for the year.

2.13 The representative of the Department while submitting problem of funding has stated as under:—

''सर, आपने बिल्कुल सही बताया। देश की समस्याएं अनेक हैं। खासकर, जो जलवायु पिरवर्तन हो रहा है, उस दिशा में हम प्रयास कर रहे हैं। जैसे हमने फसलों की 81 वेरायटीज लाई हैं, और हॉर्टीकल्चर में 25 से ज्यादा किस्में लाई हैं। इस तरह की बाकी सारी तकनीक हम लोगों ने किए हैं। लेकिन, आपका जो प्रश्न है, उसके विषय में मोटा–मोटी चीज मैं बता दूं कि हमारा जो एग्रीकल्चरल जी.डी.पी. है, उसका मात्र 0.4% फंड ही हमें शोध और शिक्षा के लिए मिलता है। यह बाकी देशों की तुलना में बहुत कम है। अगर इसे थोड़ा बढ़ाया जाए तो बहुत अच्छा रहेगा। अगर आपकी रिकमेंडेशन हो और यह कम से कम 1% हो जाए, तो यह बहुत हेल्प करेगा। सर, कुछ संस्थान हैं, जैसे आई.ए.आर.आई. इत्यादि, उनमें हम कुछ एडिशनल फैसिलिटीज को जोड़ नहीं पाए हैं, तो पूरे विश्व में अगर हमें आगे चलाना है तो इसके लिए हमें 500 करोड़ रुपए का प्रावधान कर दिया जाए, तो अच्छा होगा। बाहर से जितने डेलीगेशन आते हैं, सभी वहीं जाते हैं और यह बहुत पुराना हो चुका है।"

- 2.14 When asked about reasons for very low expenditure under Plan Head for ICAR during 2015-16, the Department in a written reply explained that reasons for less expenditure during the said period have been due to involvement of several agencies while incurring expenditure under the heads "Grants-in-Aid Capital" and "Grants-in-Aid General", which also require a chain of nodal formalities as per purchase/ other infrastructural procedures of Government of India. The time consuming nodal formalities/procedures have been- seeking the preliminary estimates, tendering of proposals for equipments, vetting by Director works, concurrence/interventions of the Internal Finance, approval of the competent authority and finally placement of orders for procurements/going ahead with constructions etc. At several occasions, the supplying firms/construction agencies take long time to supply the articles/initiation of constructions after placing supply orders in time, which is beyond the control of department. The proposed budget estimates are generally reduced at RE level which compels to review the proposals and re-exercise the entire purchase/construction procedures, Allocated funds are being released as per limits of the "Monthly Expenditure Plan" that further restrains the planning and execution of works/purchases etc.
- 2.15 When enquired about number of institutes that has put up demands for enhanced funds at RE Stage, the Department have stated that the details of the institutes/schemes that have put up demands for enhanced funds at RE Stage and details of such demands received and funds allocated by the Department during 2014- 15 and 2015-16 are enclosed at Annexure-I.

2.16 Details of allocations and expenditure during last three fiscal under Non-Plan head of the Department are as follows:—

(Rs. in crore)

Year	ear Budget Estimates		ates	Rev	Revised Estimates			Expenditure		
XII Plan	DARE	ICAR	Total	DARE	ICAR	Total	DARE	ICAR	Total	
2013-14	9.73	2304.44	2314.17	10.38	2270.70	2281.08	9.72	2240.29	2250.01	
2014-15	11.24	2418.15	2429.39	10.39	2373.61	2384.00	9.60	2373.51	2383.11	
2015-16	11.79	2617.21	2629.00	11.79	2574.21	2586.00	4.09*	2156.41*	2160.50*	
2016-17	13.11	2901.89	2920.10	-	-	-	-	-	-	

^{*}Actual Expenditure upto December, 2015.

- 2.17 When enquired about the reasons for reduction of allocations at RE stage during 2015-16, the Department have stated that allocations under Non-plan were reduced at RE stage owing to mandatory Economy cut in the Non-Plan Non-Salary expenditure.
- 2.18 When asked to furnish major heads of non-plan expenditure in DARE/ICAR, the Department have stated that the Heads of Expenditure under Demand No. 2—DARE are as under:
 - a. Salaries
 - b. Overtime Allowance (OTA)
 - c. Medical Treatment
 - d. Domestic Travel Expenses
 - e. Foreign Travel Expenses
 - f. Office Expenses
 - g. Other Administrative Expenses
 - h. Grants-In-Aid General
 - i. Contributions
 - j. Grants for creation of Capital Assets
 - k. Grants-In-Aid Salaries
- 2.19 When asked to furnish details of heads of non-plan expenditure under which enhanced allocations has been given during 2015-16, the Department have informed that there were no enhancements in the allocations for above heads in Non-Plan RE 2015-16 with respect to the BE 2015-16 allocations.

(4) FUND SURRENDERED

2.20 On the query of the Committee about the amount of funds that have been surrendered by the DARE during 2014-15 and 2015-16, the Department have stated that the total amount of funds surrendered by Department of Agricultural Research and Education during 2014-15 and 2015-16 due to reduction in allocation at RE stage by Ministry of Finance are as under:—

(Rs. in crore)

Year	Plan	Non-plan	Total
2014-15	1226.23	45.40	1271.63
2015-16	702.43	43.00	745.43

The Department have also stated that scheme-wise details including the percentage utilization as against budgetary allocation and reasons for surrender are enclosed at Annexures-II & III

(5) SUPPLEMENTARY DEMANDS FOR GRANTS

2.21 When asked about provisions for supplementary Demands during 2014-15 and 2015-16, the Department have stated that DARE had submitted the proposals for Token Supplementary Demand for Grants only for both 2014-15 and 2015-16 in order to enable the department to meet the enhancements in the RE allocations from out of the saving available within the Grant. The Supplementary Grant approved for DARE are as under:—

(Rs. in crore)

Year	Plan	Non-Plan	Total
2014-15	0.04	0.01	0.05
2015-16	0.03	_	0.03

(6) RE-APPROPRIATION OF FUNDS

2.22 On the query of the Committee regarding re-appropriation of funds between the schemes/programmes during 2015-16, the Department have stated that the Plan allocations for DARE which were Rs. 3691.00 crore in BE 2015-16 was reduced to Rs. 3000.00 crore in the RE 2015-16. As a result of this reduction, the Plan allocations for various schemes were revised. DARE has carried out the re-appropriation

of funds to meet the enhancements in the RE allocations from out of the savings available within the Grant to the tune of Rs. 6050.39 lakhs. The re-appropriation has been carried out with the approval of Secretary (Expenditure) after obtaining the Token Supplementary Demand for Grants in the 3rd and Final Batch of Supplementary Demand for Grants 2015-16. Detailed Re-appropriation order is enclosed at Annexure-IV. However, no re-appropriations were carried out in the approved RE 2015-16 allocations.

(7) FINANCIAL IRREGULARITIES

2.23 When asked to furnish details of cases of financial irregularities reported in the Institutes of ICAR to the DARE during 2015-16 and action taken by the Department in these cases, the Department have stated that details of the cases of financial irregularities reported in the institutes of ICAR to the DARE & action taken by the Department in cases of financial irregularities are as follows:—

Sl.No.	Name of the Charged Officer	Nature of irregularities committed	Name of the Institute(s)	Remarks
1	2	3	4	5
1.	 (i) Dr W.S. Lakra,	Irregularities in the construction of Gymnasium	CIFE, Mumbai	Inquiry Officer (IO) & Presenting Officer (PO) appointed.
2.	 (i) Dr W.S. Lakra, OSD, ICAR Hqrs (ii) Shri G.R. Deshbandhu, Sr. Director, ICAR Hqrs (iii) Shri Suresh Kumar, CAO, CPCRI (iv) Shri Suresh Chandra, SF&AO, CIFE (v) Shri A.K. Verma, Sr. Scientist, CIFE (vi) Shri Chanderkant M.H. Technical Officer 	Irregularities in procurement of furniture	CIFE, Mumbai	Charge Sheet issued

1	2	3	4	5
3.	Shri Debasis Moitra, CAO, NAARM, Hyderabad	Irregularities in renovation of Director's Residence, CRIJAF, Barrackpore	CRIJAF, Barrackpore	IO & PO appointed. Inquiry in progress.
4.	 (i) Dr. N. Sudhakar, Ex-Director (ii) Dr. Mahadev Reddy, Principal Scientist (iii) Dr. Dattatri, Senior Scientist (iv) Dr. Rajendu Reddy, Scientist (v) Shri Srinivas Rao, F&AO 	Financial irregularity of Rs. 88 Lakhs in developing module of ATK.	ATARI, Zone V, ZPD, Hyderabad	Charge sheet issued. The Defence Statement of Charged Officers is being examined.
5.	(i) Shri Rakesh Pandey, Chief Technical Officer(ii) Shri Rishi Kumar, Assistant	Discrepancies in stock registers and indent vouchers	IVRI, Izzatnagar	IO & PO appointed. Inquiry in progress.

(8) BUDGET & CASH MANAGEMENT SCHEME

- 2.24 The modified Budget and Cash Management (B & CM) Scheme of the Ministry of Finance launched in 2006-07 with the intention to reduce expenditure asymmetry and to plan market borrowings more realistically stipulates amongst other things the following: \$ Disclosure of monthly expenditure of major Departments. \$ Quarterly exchequer control with a limit of maximum 33% funds in Quarter-4 (Q-4). \$ March spending control with a maximum ceiling of 15% of funds.
- 2.25 On the query of the Committee regarding the quantum of funds spent by the Department in each quarter of the last fiscal, the Department have stated that the expenditure incurred by DARE during 2015-16 is strictly as per the approved Monthly Expenditure Plan 2015-16. The quarter-wise expenditure is enclosed at Annexure-V.
- 2.26 When pointed about low expenditure upto 31 December, 2015, the representative of the Department stated as under during evidence:—

''इसके बारे में जैसा आप चाहते हैं, उसी हिसाब से हम दे देंगे, लेकिन मोटे तौर पर खर्चा 90 से 95 प्रतिशत हो रहा है, जितना पैसा हमें मिलता है और पूरा विवरण दिसम्बर तक कैसा है और बाकी मार्च तक कैसे होता है। ओवरऑल जो थोड़ी सी कमी होती है, कई बार ऐसा होता है कि एक प्लान में जितने पैसे का प्रावधान किया जाता है, उसमें ई.एफ.सी. बनता है, उसका एप्रूवल आने में बहुत समय लग जाता है। एक-एक, दो-दो साल भी कई बार लेट होता है। जैसे इस बार कृषि विज्ञान केन्द्र के लिए भी हुआ तो उसके चलते जो समय पर खर्चा होना चाहिए, वह नहीं होता। काफी योजनाएं इस तरह की हैं, जिनके एप्रवल में काफी समय लगता है।''

2.27 When asked about the reasons for delay in finalisation of EFC, the representative of the Department stated as under:—

"ई.एफ.सी. तो हम लोग बनाते हैं, लेकिन इसका एप्रूवल तो जो कुछ पैसा जो ज्यादा होता है, उसमें पार्लियामेंट तक जाते हैं, कैबिनेट एप्रूवल चाहिए होता है, उसमें समय लग जाता है। उसके कई कारण हैं, उसका विवरण हम लिखेंगे। जो नई-नई संस्थाएं बनती हैं, उसके लिए भी प्रावधान करना पड़ता है, लेकिन उसके एप्रूवल में भी समय लगता है। उसको फिर हम दूसरी जगह खर्च करते हैं, क्योंकि वह समय पर हो नहीं पाता है। उसमें भी समस्या रहती है। इसमें कई चीजें हैं, जो हम लिख कर दे देंगे। उसमें आपका थोड़ा सहयोग चाहिए होगा।"

(9) REVENUE RECEIPT

2.28 When asked about the targets and achievements of revenue generation of institutes of ICAR during 2015-16, the Department have stated that the targets of Revenue Generation are being fixed for the constituent units of the Indian Council of Agricultural Research under DARE. These targets are fixed on the basis of actual generation of Revenue for the past one-two years. The targets for Revenue Generation for 2015-16 are as under:—

2015-16 (Rs. in crore)						
Targets	Achievements (Upto Feb., 2016)					
125.46	68.82					

2.29 When asked to furnish details of fee received by all institutions of ICAR for consultancy/training services provided to other organizations during 2015-16, the Department have informed that details would be available after finalization of Annual Accounts of ICAR for the year 2015-16.

2.30 When asked about details of utilization of revenue generated by DARE/ICAR institutes during the last five years, the Department

have furnished following details regarding utilization of revenue generated by DARE/ICAR institutes during the last five years:—

(Rs. in lakhs)

Year	Amount
2010-11	5640.16
2011-12	7133.03
2012-13	8671.76
2013-14	12242.75
2014-15	24487.88

On the query of the Committee regarding targets for revenue generation from institutes of ICAR set for 2016-17, the Department have stated that the targets for Revenue Generation for 2016-17 are yet to be finalized.

(10) PLANNING IN THE ERA OF NITI AAYOG

2.31 Financial year (2016-17) is the last year of Twelfth Five Year Plan (2012-17). However, the Government is yet to take any decision regarding continuation of five year plan or formulation of Thirteenth Five Year Plan. Further, Planning Commission has been replaced by NITI Aayog. When asked about views of the Government regarding formulation of five year plan after dissolution of Planning Commission and alternative system of long term Planning are being envisaged by the Government for Indian Economy in general and agricultural research and Education in particular, the Department have stated that as per Allocation of Business Rules, the NITI Aayog mandated to evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States in the light of national objectives. Aayog is also assigned the responsibility to develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of Government. To design strategic and long term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lesson learnt through monitoring and feedback will be used for making innovative improvements, including mid-course corrections.

2.32 On the query of the Committee regarding assessment for quantum of funds required by the ICAR during the next five years as per Vision Document 2050, the Department have stated that they are

working with Planning Commission in assessment of fund requirements for the entire next five year plan during last year of ending Five Year Plan, however with the reorientation of the Planning Commission into NITI Aayog, the same has not been exercised. Department is not aware, whether the planning will be made annually for the five years. Overall allocation of the 1.0% of total agricultural GDP has been envisaged for the Department (DARE/ICAR) by various agencies and National Committees for attaining required growth of agriculture sector in the country. The details of fund requirements for DARE/ICAR under Plan and Non-plan heads for next five years are given below:—

Sl. No.	Head	2017-18	2018-19	Year 2019-20	2020-21	2021-22
1.	Plan	7111.99	8186.14	9044.23	10161.58	11374.19
2.	Non-Plan	3503.32	4028.76	4633.05	5327.94	6127.04
	Total	10615.31	12214.9	13677.28	15489.52	17501.23

2.33 When enquired about system within DARE/ICAR for long term and financial assessment to achieve goals envisaged in the field of Agricultural research and education, the Department have stated that India follows a policy of public investment in science and technology for economic development. This is because of strategic nature of science, amount of resources needed and dealings with international organizations on scientific matters. Around 14 per cent of the total R&D expenditure of the Union Government is on agricultural research and education, and more than half of ICAR budget is spent on SAUs, KVKs and AICRPs. The public investment is examined by computing the research intensity ratio (research expenditure as percentage of AgGDP). The current agricultural research expenditure intensity is about 0.4 per cent for India. The Department of Agriculture Research and Education (DARE)/ICAR had proposed an amount of Rs. 57,887.21 crore for the XII Plan. The Working Group appointed by the Planning Commission (now NITI Aayog) had also recommended Rs. 55,000 crore as XII Plan Outlay for DARE/ICAR. The Department had been communicated the Gross Budgetary Support of Rs. 25,553 crore for the XII Plan by the Planning Commission on September 2012. As per existing trend, over a period of time the DARE/ICARs share of annual allocation (Plan + Non-Plan) w.r.t. corresponding Agricultural GDP (at current prices) is oscillating between 0.3 to 0.4%. The Parliamentary Standing Committee on Agriculture had been strongly recommending throughout that the Department should be provided at least 1% of AgGDP, so as to boost the on-going efforts of the Department through agriculture research, education and extension activities to achieve a target of 4% annual growth in agriculture sector. Accordingly, the Department anticipates its future financial requirements while taking into account the above mentioned contemporary economic factors in view.

(11) INFORMATION, COMMUNICATION AND PUBLICITY SERVICES

- 2.34 The Department in their Annual Report (2015-16) have stated that the Directorate of Knowledge Management in Agriculture (DKMA) continued its efforts to showcase ICAR's Technologies Policy and other activities through modern dissemination methods that cater various stakeholders in the field of agriculture. The Department have also stated that efforts were accelerated to disseminate the information and knowledge about new technologies and innovations among the stakeholders, especially farmers, by publishing various categories of popular and technical publications in Hindi, including the development of informative literature and brochures based on the new schemes launched by the ICAR for farmers' welfare.
- 2.35 When asked to furnish details of earmarked outlays and actual expenditure for information, communication and publicity services during XII Plan period, the Department have stated that the earmarked outlays for information, communication and publicity services during XII Plan period is Rs. 2600 lakh against which SFC/EFC approved outlay is Rs. 2400.00 lakh and year-wise allocations are as under:—

(Rs. in lakh)

Year	2012-13 (RE)	2013-14 (RE)			2016-17 (BE)
	170.00	160.00	139.23	350.00	500.00

2.36 On the query of the Committee regarding details of number of Magazines, Periodicals etc. being published by the DKMA and other institutes of ICAR's for wider dissemination of information related to new technologies/machines/seeds/farming methods being developed by ICAR's institutes to the farmers, the Department have furnished following details about details of number of magazines published, expenditure incurred and revenue earned from publications of DKMA are as under:—

Sl.No.	Name of Magazines/ Journals/Periodicals	No. copies published in a year	Revenue generated in the year 2015-16
1	2	3	4
1.	Kheti (Hindi monthly)	12	Rs. 86.42
2.	Phal Phool (Hindi bi-monthly)	6	lakh

1	2	3	4
3.	Indian Farming (English monthly)	12	
4.	Indian Horticulture (English bi-monthly)	6	
5.	The Indian Journal of Animal Sciences (English monthly)	12	
6.	The Indian Journal of Agricultural Sciences (English monthly)	12	
7.	ICAR news (English quarterly)— unpriced	4	
8.	ICAR Reporter (English quarterly)— unpriced	4	
9.	ICAR Mail (English monthly)—unpriced	12	
10.	ICAR chitthi (English monthly)—unpriced	12	
11.	Agbiotech Digest (Quarterly)—unpriced (Hindi & English)	8	

2.37 When asked about efforts being made by the ICAR to create alternative system of information dissemination to the farmers other than publications, the Department have stated that details of activities done by the ICAR in this regard during XII Plan are enclosed at Annexure-VI.

2.38 On the issue of making provision for availability of publication of ICAR in regional languages in different parts of India, the representative of the Department has stated as under:—

^{&#}x27;'सर, वह कर देंगे। मैं डॉ. रामेश्वर सिंह से निवेदन करता हूं कि इस काम को लोकल भाषा में थोड़ा और बढ़ाएं।''

CHAPTER III

SECTORAL PROGRAMME

(1) CROP SCIENCE

Crop Science Division, through its 26 research institutes, 22 All India Coordinated Research Project (AICRPs) and 11 Network Research Projects and in active collaboration with State Agricultural Universities (SAUs) is engaged in the development of improved crop varieties/ hybrids, cost-effective production technologies and environment-friendly crop protection technologies. In order to hasten the cherished goal of enhanced crop productivity and ensure food and nutritional security in the country, the main emphasis has been on development of traitspecific high yielding crop varieties and hybrids. Particular focus is given on developing varieties with tolerance to pest and diseases, besides various abiotic stresses. Total 81 improved varieties/hybrids of different crops were released during 2015 including 21 of rice, 11 of wheat, two of barley, six of maize, three of pearl millet, four of sorghum, 16 of oilseeds, eight of pulses, six of fodder and one each of cotton, jute, sunhemp and sugarcane for cultivation in different agro-ecological regions of the country. To give fillip to spread of new varieties and effective seed chain maintenance, a total of 978, 17562, 12847, 14000, and 3418 tons of breeder, foundation, certified, truthful labelled seed and planting material respectively, were produced. Besides, nearly, 2026 lakh of planting material and tissue cultured plants were produced. New molecular diagnostic approaches for viral diseases, use of pheromone traps, validation of newer chemical formulations, weather-based forewarning & management of major insect pests and diseases all served to form an effective Decision Support System providing impetus to production of pulses and oilseeds. A major programme on increasing protein content in three major pulses including chickpea, field pea and pigeon pea has been envisaged in a phased manner through identification of high protein lines which could act as donors in breeding programmes. Summer moong offer the most valuable option for crop diversification as its short-duration varieties mature in less than 60 days. With the efforts of KVKs, the summer moong cultivation became very popular in Punjab, Rajasthan, Haryana, Himachal Pradesh and Bihar.

3.2 Under the head of Crop Science only 60.97% (BE) of allocations were made as against on earmarked outlays of Rs. 4141.31 crore for

XII Plan. Funds have been further reduced at RE stage. Status of allocation and utilization of funds during Twelfth Plan are as follows:—

(Rs. in crore)

Year	Proposed fund by DARE	BE	RE	Actual Expenditure
2012-13	837.75	500.00	413.00	400.58
2013-14	628.01	465.00	375.00	368.98
2014-15	862.48	470.00	380.30	370.69
2015-16	520.00	570.00	495.00	329.69*
2016-17	520.00	520.00	_	_
Total	2848.24	2525.00	1663.00	1469.94

^{*}Actual Expenditure upto December, 2015.

- 3.3 When asked about the impact of reduced allocations at RE stage on implementations of Research work in institutes under division of Crop Science, the Department have stated that though the reduced allocation has been a cause of concern for the Division, adequate measures were taken to ensure that no major programmes suffered due to paucity of funds. All the proposals received from the Institutes under the Crop Science Division were critically evaluated and the limited funds which were allocated to the division were diverted to critical areas needing focused attention for accomplishing the targets.
- 3.4 When asked about reasons for drastic reduction of Rs. 75 crore i.e. about 13% at RE stage during 2015-16 under this head, the Department have stated that the drastic cut in the allocation of Crop Science Division in the RE 2015-16 (Plan) was apparently due to the overall cut effected by the Government of India, Ministry of Finance in the plan allocation of DARE/ICAR in RE 2015-16.

R&D ON PULSES

3.5 The United Nations has declared 2016 the International Year of Pulses (IYP). Pulses are important source of protein for majority of population in India. Our country, despite being largest producer of the Pulses in the world, has to import large quantity of pulses to meet the deficit. It has direct impact on prices of pulses in Indian Market. When asked to furnish State-wise details of production, productivity and

coverage of different types of pulses in the country during the last 5 years, the Department have stated that Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, Andhra Pradesh and Karnataka are the major pulse growing States contributing almost 80 per cent to the total pulse production. State-wise details of production, productivity and coverage of different types of pulses in the country during the last 5 years are as follows:—

State		2010-11			2011-12	
	Area (000' ha.)	Production (000' tones)	Productivity (Kg./ha.)		Production (000' tones)	Productivity (Kg./ha.)
Andhra Pradesh	2130.0	1439.0	676	1931.00	1247.00	646
Bihar	605.00	556.00	919	538.30	509.30	946
Gujarat	852.00	720.00	653	951.00	783.00	823
Karnataka	2699.00	1497.00	555	2332.00	1061.00	455
Madhya Pradesh	5178.00	3391.00	655	5179.00	4160.10	803
Maharashtra	4070.00	3146.00	774	3186.00	2215.00	695
Odisha	852.00	414.00	486	757.00	357.20	472
Rajasthan	4710.00	3216.00	683	4451.10	2360.00	530
Tamil Nadu	728.00	296.00	407	780.60	399.50	512
Uttar Pradesh	2427.00	2012.00	829	2448.00	2426.00	991
Jharkhand	407.00	267.00	656	538.80	492.30	913
Chhattisgarh	856.00	536.00	626	804.80	496.50	617
India	26280.0	18240.0	694	24780.0	17210.0	695

State	2010-11				2011-12			2012-13		
	Area (000' ha.)	Production (000' tones)	Produ- ctivity (Kg./ha	711 00	Production (000' tones)	Produ- ctivity (Kg./ha	(000'	Production (000' tones)	Productivity (Kg./ha.)	
1	2	3	4	5	6	7	8	9	10	
Andhra Pradesh	1948.0	1563.20	802	1672.00	1551.00	928	1367.0	1136.0	831	
Bihar	527.80	541.40	1024	500.00	522.00	1044	522.0	538.0	1030	

1	2	3	4	5	6	7	8	9	10
Gujarat	681.00	613.00	900	813.00	729.00	897	654.0	599.0	916
Karnataka	2328.0	1318.60	566	2498.00	1600.00	640	2286.0	1414.0	619
Madhya Pradesh	5309.7	4981.30	938	5395.00	4644.00	861	5549.0	5224.0	941
Maharashtra	3275.0	2413.00	737	3953.00	3169.00	802	2977.0	1806.0	607
Odisha	828.00	423.80	512	780.00	419.00	537	811.0	445.0	549
Rajasthan	3245.6	1945.00	599	4197.00	2490.00	593	3574.0	2169.0	775
Tamil Nadu	619.40	249.10	402	815.00	613.00	752	887.0	365.0	411
Uttar Pradesh	2364.0	2434.00	1030	2305.00	1697.00	736	2522.0	2197.0	871
Jharkhand	557.00	594.90	1068	566.00	578.00	1021	575.0	558.0	970
Chhattisgarh	891.90	636.80	714	839.00	482.00	574	824.0	531.0	644
India	23470	18340	781	25211	19250	764	23370	17250	738

3.6 When asked to furnish details of import of different types of pulses in the country during the last 5 years, the Department have stated that production of pulses in the country during the last 3-4 years has been quite encouraging, figuring at around 17-19 million tonnes. Irrespective of pulses production figures, the current domestic production of pulses in the country generally falls short of the domestic requirement of about 22.50 million tonnes (mt.) processed dal. This domestic requirement includes direct demand (60%) of pulse grains as whole/split grains, value added products (15%), seed (7%), and milling losses. The shortfall is mostly met through imports. During 2013-14, 3.09 mt. of pulses were imported bringing a burden of Rs. 11038 crores. Nonetheless a small quantity (3.45 lakh tonnes), mainly of kabuli chickpea, was also exported this year. This made the total availability pulses in the country to the tune of 21.82 mt. Details of import, export and availability of different types of pulses in the country during the last 5 years is given below:

Items/Years	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15*	2015-16**
Production	147.6	145.7	147.0	182.4	172.10	183.4	190.27	173.8	183.2
Export	1.82	1.45	1.29	2.06	1.75	2.01	3.45	2.2	2.4
Import	29.45	25.8	37.64	27.80	34.96	38.36	31.78	45.4	41.0
Total availability	175.23	170.05	183.35	208.14	205.31	219.75	218.16	217.4	221.5

^{*}Fourth Advance estimates, DAC; **Production, export and import estimates of last three years were taken; Export and import figures for April to July, 2015.

On the above issue, the representative of the Department have stated as under:

"…सर, भारत में सबसे ज्यादा चना होता है। हम चना बाहर से बहुत कम इम्पोर्ट करते हैं। जैसा कि आपने बताया, अरहर, मूंग और मसूर ये तीन चीजें हम ज्यादातर बाहर से मंगवा रहे हैं। हम कुल 40-45 लाख टन बाहर से मंगवा रहे हैं। इसकी भरपाई करने के लिए हमने 500 करोड़ रुपये की एक व्यापक योजना बनायी है, एक मैप तैयार किया है। हमें लगता है कि दो-तीन सालों में, जैसा कि हमने पिछले पांच-सात सालों में चार मिलियन टन जोड़ा है, अगर उसी गित से हम आगे बढ़े तो चार-पांच मिलियन टन और यह ला सकते हैं. हम इतनी क्षमता दलहन में रखते हैं।…"

3.7 On the query regarding policy of the Government to enhance production of pulses in the country, the Department have stated that a number of area and season specific varieties have been developed in different pulses which are not only high yielding but are also resistant to most of the disease and insect-pests. These varieties have proven their potential in farmers' fields as also in large scale demonstrations. It has been demonstrated that improved varieties of pulses have a positive impact of 15-20% in increasing pulses production in all major pulse crops including chickpea, mungbean, urdbean and lentil while in pigeonpea, improved varieties increase the yield by 10-12%. Further, a large number of crop production, management and protection technologies have been developed for pulses which have demonstrated their potential in large scale demonstrations as well. Such package of practices include:

- Weed management through application of Pendimethaline (30 EC) @ 1.0 Kg a. i./ha as pre-emergence application and Imazethapyr @ 70-80 g/ha as post-emergence application at 20-25 DAS after assuring the germination of weed.
- Seed treatment with 5 ml of Imidacloprid (17.8 SL)/kg seed followed by usual PGPR seed inoculation.
- Control of thrips by spraying Imidacloprid (17.8 SL) dissolving 3 ml in 10 liters of water @ 600 to 800 liters of solutions.
- Adoption of life saving irrigations in Uttar Pradesh, Madhya Pradesh, Rajasthan, Maharashtra, Andhra Pradesh and Karnataka.
- Seed priming by soaking seeds for 6-8 hours in water (Chhattisgarh, Bundelkhand region, Bihar, West Bengal, Odisha and Assam).
- Ridge planting of pigeonpea in high rainfall and low lying plain areas.

- 2% foliar spray of Urea in rainfed areas at flowering/pod filling stage.
- Adoption of efficient and remunerative cropping systems viz.
 rice-wheat-moongbean, pigeonpea-wheat and maize/sorghum/pearl millet-chickpea/lentil.
- Seed inoculation with efficient strains of Rhizobium and phosphate solubilizing bacteria (PSB) @ 15-20 g/kg seed led to 10-15% increase in yield over un-inoculated control.
- Treating seed with Ammonium Molybedate @1 g/kg chickpea seed in soyabean-chickpea system of central India.
- Raised bed planting for population management and ridge & furrow system to conserve and enhance water use efficiency in pigeonpea.
- 100 kg DAP per ha along with basal application of Sulphur @
 20 kg and Zinc @15 kg/ha.
- Seed treatment with Thiram + carbendazim (2:1) @ 3 gm per kg of seed to ensure good plant stand.
- Use of borax @ 15 kg/ha as basal in chickpea under rice based system of eastern India.
- Bio-control of soil borne diseases by use of Trichoderma + carboxin (4 + 1g/kg seed) has been recommended.
- Use of Pheromone traps (@ 4-5 traps/ha) for control of pod borer in chickpea and pigeonpea.

3.8 The Department have also stated that target for achieving self-sufficiency has been fixed by raising productivity from 764 kg/ha to 900 kg/ha through better management practices and by expanding area from present 23.5 million ha to 27.0 million ha. Emphasis has to be given to increase production of quality seed to ensure the availability of quality seeds of improved varieties as well as to increase availability of critical inputs like micro-nutrients, bio-fertilizers, bio-agents. Accordingly, a scheme for enhancing indigenous pulse production to achieve self-sufficiency by 2020-21 has been initiated besides existing NFSM and BGRI schemes. On the above issue, the representative of the Department has stated as under:

"सर, इस दिशा में बहुत से कार्यक्रम चल रहे हैं। वर्ष 2010-11 को देखेंगे तो पहले चावल उत्पादन हमारा 95 मिलियन टन हुआ करता था, पिछले चार साल में हम 105-106 मिलियन टन उत्पादन कर रहे हैं। 8 से 10 मिलियन टन एक्स्ट्रा पूर्वी भारत से ही हमें मिल रहा है। यह एक उदाहरण है कि ये हमारी जो किस्में निकली हैं और हमारा प्रयास है, दूसरी स्टेट गवर्नमेंट एंड डीएसी का भी इसमें प्रयास रहता है। यह एक सफल प्रयास है। आठ से दस मिलियन टन हमें चावल में एक्स्ट्रा पूर्वी भारत से मिल रहा है, यह एक उदाहरण है। महोदय, कुछ ऑयल सीड और पल्सेज पर हमने बड़े स्तर पर अभी प्रोडक्शन शुरू किया है। 60 हजार एकड़ में जो अभी कंटीन्जेंसी की बात आ रही थी, उसके लिए 18 करोड़ रुपए हमने डीएसी से लिया है अपने आईसीएआर फंड के अलावा, तो 60 हजार एकड़ पर लगभग 60 हजार किसानों के यहां हम ऑयल सीड पल्सेज का डिमांस्ट्रेशन कर रहे हैं। आशा है कि इससे जरूर ऑयल सीड्स और पल्सेज की जो डेफिसिएंसी है और जो नई तकनीकी है, उसको हम किसानों तक पहुंचा पाएंगे।''

- 3.9 When asked about efforts being made by the Department regarding development of short duration varieties of mung and arhar, the representative of the Department has stated as under:
 - "….जैसा हमने बताया जैसे मूंग और अरहर में, मूंग में तो 55-60 दिन की ड्यूरेशन वाली किस्में तैयार हो चुकी हैं और समर मूंग की काफी किस्में हमारे पास हैं और लगा भी रहे हैं। अरहर में अभी यह आने वाला है, इसमें दो-तीन साल और लगेंगे। पूसा संस्थान में और हमारा जो दलहन संस्थान है कानपुर में, वहां से यह अभी आ जाएगा।…."
- 3.10 When asked about identification of potential areas where cultivation of pulses can be promoted and productivity can be increased, the Department have stated that potential areas for bringing additional 3.0 million ha. under pulse cultivation have been identified where cultivation of pulses can be promoted and productivity can be increased. A State/district wise map of potential area for expansion of different pulse crops by 2020 has been prepared which is enclosed at Annexure-VII crop-wise (Considers intercropping and sole cropping in both traditional and non-traditional areas).
- 3.11 When asked about steps being taken by the ICAR for R& D for development of improved varieties of pulses with higher yield and pest resistant capacity, the Department have stated that the Indian Council of Agricultural Research (ICAR) has taken many steps for R&D on pulses wherein improved varieties of pulses with higher yield and pest resistant capacity can be developed. ICAR has established Indian Institute of Pulses Research (IIPR), Kanpur which undertakes basic, applied and strategic research for development of improved, high yielding and biotic and abiotic stress resistant varieties of different pulse crops. Three All India Coordinated Research Projects (AICRP), one each on Chickpea, Pigeonpea and MULLaRP (moongbean, urdbean, lentil, lathyrus, rajmash and fieldpea) and one Network project on Arid Legumes through a wide network of the centres under each AICRP mostly located in

State Agricultural Universities across the country are developing location specific varieties and production technologies suitable for different agro ecological zones of the country. In addition to this, various centres under AICRPs are involved in breeder and nucleus seed production, germplasm evaluation and maintenance, organization of front line demonstrations. Till now following varieties have been developed and notified to enhance the yield of pulse crops in the country:

Bengal Gram/Gram/Chickpea/Kabuli/Chana	217
Green Gram/Moong Bean/Moong	161
Pigeon Pea/Red Gram/Arhar	144
Black Gram/Urd Bean	123
Cowpea/Lobia/Asparagus Bean/Yard Long Bean	95
Peas (Field Peas/Garden Peas/Matar)	89
Lentil (Masur)	71
Rajma (French Bean)	40
Horse Gram (Kulthi/Kultha)	31
Indian Bean (Field Bean/Wal)	30
Moth Bean (Kidney Bean/Deww Gram)	20
Khesari (Chickling Vetch/Grass Pea)	5
Lathyrus	3
Faba Bean (Horse Bean/Windsor Bean)	2
Mochai (Lab-Lab)	2
Winged Bean	1
Total No. of Varieties of Pulses	1034

^{3.12} On the query of the Committee regarding steps being taken by the ICAR for development of varieties of pulses (pigeon pea, green gram etc.) that can be grown in short duration during summer season, the Department have stated that integrated breeding approaches involving conventional and modern techniques have been taken up by ICAR-IIPR and different AICRP centers to develop climate resilient short duration varieties of different pulse crops that can be grown across locations. The aim of development of short duration varieties is mainly

at increasing cropping intensity and targeting short season windows available in between two main crops such as after the harvest of wheat in north India and rice fallows in peninsular India. Pre breeding using wild species and primitive land races are being characterized and utilized to exploit cryptic genetic variability for identification and transfer of desirable alleles from wild sources. Development and popularization of short duration (60-65 days maturing) varieties of mungbean IPM 2-3,IPM 2-14,Samrat and MH 421 have helped in bringing 5.0 lakh additional are under rabi/spring moongbean during last three years. Efforts are under way to breed 55 days maturing moongbean and 110-120 maturing Pigeonpea varieties.

- 3.13 When asked about steps being taken by the ICAR for Research on management of pests/disease affecting cultivation of pulses in the country, the Department have stated that development of disease and pest resistant cultivar in different pulse crops have been major focus of National Agricultural Research System, research on management of pests/disease affecting cultivation of pulses in the country and has released several resistant varieties and integrated management practices. Transgenics against pod borer resistance in chickpea and pigeonpea have been developed. Research work is going on development of strategies for management of major pest and diseases of pulses for pre and post-harvest conditions:
 - 1. Integration pest and disease management module of chickpea, pigeonpea, moongbean and urdbean.
 - 2. Integrated management of stored grain pests of Pulses.
 - Forecast and fore warning modules of pod borer and pod fly in pigeonpea. When asked about development of pesticides/ fungicides by ICAR which can be used for containing pests affecting pulses, the Department have not furnished any response.
- 3.14 When asked about new varieties of pulses developed by the ICAR institutes in the country during the last five years, the Department have stated that with the collaborative research efforts of IIPR, Kanpur and different partner centres of three AICRPs and the AINP on arid legumes, a large number of location specific varieties have been developed in different pulse crops. These varieties are not only high yielding but are also resistant to most of the prominent biotic and abiotic stresses. Improved varieties which have been immensely beneficial to the pulse growing farmers of different regions of the country, developed during the last five years are mentioned below:

High yielding varieties of pulse crops developed during last five years (2010-15):

Crop	Varieties
Chickpea (25)	IPCK 2002-29, IPCK 2004-29, Phule G 0517, PKV Kabuli 4, MNK 1, HK 05-169, JSC 55 (RVG 202), JSC 56 (RVG 203), CSJK 6, GLK 26155, Phule G 0027, GJG 0809, GNG 1958, GNG 1969, CSJ 515, GLK 28127, Vallabh Kabuli Channa-1 (WCGK-2000-16), PKV Kabuli 4, Pant Kabuli chana 1, Gujarat Junagadh Gram 3, Raj Vijay Kabuli Gram 101, Raj Vijay Gram 201, PKV Harita (AKG 9303-12), NBeG 3, Birsa Chana 3
Pigeonpea (13)	Pant Arhar-291 (PA-291), Surya (MRG-1004), Rajeevlochan, TS-3R, Anand Grain Tur-2 (AGT- 2), BDN 711 (BDN 2004-3), IPA 203, PT-0012, BRG-4, Rajendra Arhar-1, AGT 2, GJP 1, GT 103
Urdbean (15)	Lam Minumu 752, Mash 114, UPU 00-31(Himachal Mash 1), Mash 391 (LU 391), Mash 479 (KUG 479), VBN (Bg) 7 (VBG04-008), IPU 07-3, Vishwas (NUL-7), VBN 6, UH-1 (UH 04-06), Co 6, KPU 405, VallabhUrd, LBG 787, TU 40
Mungbean (16)	IPM 02-3, IPM 02-14, Pusa 0672, Madhira Pesara 347, MH-125, Pant Mung-5, Piary Mung, VBN (Gg) 3, PKV Green Gold, PKV AKM-4 (AKM- 9904), KM 2195 (Swati), MH 421, BM 2003-2, Suketi, DGGV 2, Co GG8
Field pea (15)	Aman (IPF 5-19), Pant P 74, IPF 04-9, TRCP-8, VL Matar 47 (VL 47), HFP 529, Dantiwada Fieldpea-1 (SKNP 04-9), Shikha, Sapna, PSM 1, HFP 715, IPFD 10-12, RFP 2009-1, IPFD 11-5, Shalimar Pea
Lentil (9)	Pant Lentil 6 (PL 02), Pant Lentil 7 (PL 024), VL Masoor 129, Pant Lentil-8 (Pant L-063), VL Masoor 514 (VL 514), LL 931, VL Masoor 133 (VL 133), IPL 316, RVL 31
Rajmash (2)	Gujarat Rajmash-1, Arka Anoop
Guar (4)	RGC-1033, HG-2-20, HG-884, HG-870
Cowpea (4)	Pant lobia-1, Pant lobia-2, Pant lobia-3 (PGCP-6), Pant Lobia 4
Horsegram (3)	VLG-19, Indira kulthi-1, CRHG 22

3.15 When asked about steps being taken by the ICAR to ensure availability of varieties of seeds of pulses developed by their institutes, the Department have stated that the ICAR has taken various steps to ensure availability of varieties of seeds of pulses developed by the institutes. Different States of the country are giving indents to DoAC and FW as per their requirement. DoAC and FW forward this indent to ICAR for production of breeder seeds. After thorough discussion in group meets production strategy is finalized. To ensure timely and adequate quantity of quality seeds in pulses, ICAR with the help of IIPR and State Agriculture Universities produces breeder seed of different varieties of pulses crops to ensure the availability of quality seed to farmers. The details of breeder seed production of chickpea, pigeonpea, mungbean, urdbean, lentil and fieldpea during last three years is given as under:

Crop	Bree	der seed production	n (q)
	2011-12	2012-13	2013-14
Chickpea	11141.21	10452.06	9656.99
Pigeonpea	1317.20	781.60	673.80
Mungbean	1052.93	1381.20	714.76
Urdbean	819.85	1030.65	493.27
Lentil	531.37	717.77	691.74
Fieldpea	946.34	959.34	635.48
Total	15808.90	15322.62	12866.04

3.16 The Department have also stated that ICAR-IIPR is providing nucleus and breeder seeds of improved varieties of different pulse crops to the seed production agencies. The seed producing agencies are multiplying it to foundation and certified seeds. Certified seeds of different pulse crops are being provided to the farmers by these seed producing agencies through their registered dealers. In order to enhance quality seed further ICAR has proposed to create 150 seed hubs in different State Agricultural Universities, ICAR Institutes and KVKs in coming three years.

3.17 When asked about major impediments being faced by the farmers during cultivation of pulses in the country, the Department have stated that in most pulses, there is a huge gap between the potential yield and the realized yield. It is evident that the actual productivity of different pulses is considerably lower as compared to

their potential yield as well as that realized in demonstrations. One of the important reasons behind low productivity in pulses is that these are generally grown in poor and marginal lands with minimum inputs. About 87% of the pulses cultivation in the country is rainfed. Farm mechanization is lagging far behind in pulses cultivation in the country. Most of the pulse growers are generally resorting to manual operations in pulses from sowing to harvesting. This not only increases cost of cultivation and drudgery but also leads to more losses. State and National Seed corporations are measurably failed to provide quality seed of improved varieties. The above constraints are further compounded in the absence of favourable market intervention in the form of minimum support price and efficient procurement mechanism besides lack of liberal credit policy.

- 3.18 The Department have further stated that expansion of irrigation facilities in northern India has led to displacement of pulses by wheat, rice, and maize in large area. Area under pulses declined from 10.12 million ha to 8.16 million ha (about 20%) in north India alone during last 25 years. On the other hand, area of pulses increased from 11.34 million ha to 15.01 million ha in central and south India during the last three decades. Among pulses, chickpea area has decreased by more than 50% in north India, considering the base year 1971-75. There has been a major shift in chickpea area (about 3.0 million ha) from northern India (cooler, long season environment) to southern India (warmer, short season environment) during the past four decades. The shortduration varieties have played a key role in expanding area and productivity of chickpea in central and southern India. Among all major pulses of northern India, chickpea suffered maximum loss of 63% area (from 4.98 million ha in 1971 to 1.85 million ha in 2010), mainly due to replacement by wheat. Popularization of short duration varieties and cropping system intensification through pulse-based cropping systems.
- 3.19 When asked about impediments in increasing the area of cultivation of pulses in the country, the Department have stated that adoption of short duration varieties of pulses will help increasing the cropping intensity and boost pulses production in the country. This has been well demonstrated in case of mungbean where short duration varieties (Samrat, IPM 02-3, IPM 2-14, HUM 16 and SML 668) have been well adopted by the farmers in spring/summer season in Punjab, Haryana, parts of Rajasthan and western U.P. and MP after the harvest of wheat, potato and rapeseed-mustard. Likewise in cowpea also short duration varieties are available. Work is underway to further reduce the duration of major pulses so that these can fit well in different

pulse based cropping systems. Efforts are under way to breed short duration (110-110 days) varieties of lentil and chickpea for newer niches. Profitable pulse-based cropping systems for different agro ecological niche have been developed. Adoption of suitable pulse based cropping system will not only enhance the availability of pulses in the country but also boost the production of other crops in the system by their soil ameliorating properties. Higher system productivity have been reported in several pulse based cropping systems. The most prominent pulse based cropping system in different states are mentioned in:

- Availability of quality seed: Seed is the most critical input as far as productivity of pulses in concerned. Quality seed not only ensures genetic purity but also good germination, optimum population per unit area and good crop stand. To ensure quality seed availability in the country the following measures need to be adopted immediately:
 - Adoption and promotion of new varieties by bringing them into seed chain and appropriate seeds indent by the State departments following seed rolling plan.
 - Production of TL seed at research institutions and SAUs as well as at KVK farms and their distribution to farmers.
 - One cycle multiplication of certified seed at KVKs farms before their demonstration/distribution to farmers.
 - Continuing subsidies for few additional years to those mega varieties which are very popular and have huge seed indent but are going to be phased out of seed chain due to completion of time period.
 - Strengthening infrastructures of Research farms and KVKs for increasing seed multiplication ratios and developing/strengthening seed processing and storage facilities.

Micro irrigation

Rabi pulses generally suffer from terminal moisture stress while kharif pulses suffer from various kinds of droughts throughout their life cycle. Moisture stress in pulses manifests in various forms such as flower drop, no seed formation, development of shriveled and underdeveloped seeds and forced maturity ultimately affecting their production. Lifesaving irrigation through efficient microirrigation systems will give a big boost to pulses production in the country. In this direction linking PMKSY with pulses production is suggested.

Policy initiatives:

- Procurement: Assured procurement and inclusion of pulses in public distribution systems and in mid-day meals at least in the major pulse growing states will attract farmers in taking pulses cultivation as remunerative enterprise. This will have a positive effect in improving the area under pulses cultivation. Purchase of pulse grains from farmers on market price when the market price is high and purchase at MSP when the market price is low will encourage farmers to take up pulses cultivation as a main agricultural enterprise. It will improve their socio-economic status and also save them from distress selling in case of excess production.
- MSP: Minimum support price (MSP) of pulses needs to be made lucrative to the extent that pulses cultivation fetches equal returns to the farmers as in case of cereals. This will encourage them to undertake pulses cultivation.
- Buffer stock: A buffer stock of important pulses needs to be created for consumption as well as seed in the country to meet any contingent condition such as in the phase of climatic adversities, outbreak of diseases and insectpests or natural calamities. Proper planning for storage structure is the need of the country.
- Holding limit: Strict imposition of holding limit of pulses with traders will discourage disproportionate holding which will not let the prices of pulses escalate. The farmers will also be saved from distress selling to traders.

(2) HORTICULTURE SCIENCE

3.20 Horticulture Science Division coordinate and monitors the research programs through its 23 research establishments in the country for technological development in enhancing the horticulture crop productivity and product availability through collection, conservation and characterization of germplasm for breeding improved varieties, production technology with special reference to abiotic stresses and protected cultivation, seed and planting material, plant health management and food safety, postharvest handling, processing and value addition. The labour needs and mechanization need are also being addressed in a well-defined timeframe to meet the challenges. With strong R&D Network across the country, the horticultural scenario is changing rapidly in terms of production and productivity. Requisite priority with focused efforts on development of horticulture in the

country has led to increases in production and productivity and has virtually improved the economy in several states. Horticulture sector contributes 31 per cent to Agricultural GDP and for the third consecutive year the production (281 million tons from 23.4 million ha) of horticultural crop remained more than the food crops during 2014-15. The first advanced estimate indicates that the production of horticultural crops would be approx. ~283 million tons from 23.34 million ha during 2015-16. This has been possible due to advanced research; technology based scientific production methodologies and supportive Government policies. Although, country is leading in production of many horticultural crops but Post-harvest/production losses are causes of concern and need to be addressed appropriately.

It is observed that under this head only 72.78% (BE) allocations as against earmarked outlays of Rs. 1422.00 crore for XII Plan. Funds have been further drastically reduced at RE stage. Details of allocation are as follows:—

(Rs. in crore)

Year	BE	RE	AE
2012-13	240.00	145.00	143.55
2013-14	200.00	149.00	139.88
2014-15	210.00	144.35	137.58
2015-16	225.00	180.00	137.60*
2016-17	200.00	_	_
Total	1035.00	658.00	558.61

^{*}Actual Expenditure upto December, 2015.

3.21 When asked about the reasons for allocations of about only 72.78% (BE) of the plan period under the head against XII Plan allocations, the Department have stated that the reduced allocation (BE) of Horticulture Division in the plan period under the head against XII Plan allocations was due to the overall cut effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR.

3.22 On the query of the Committee regarding reasons for drastic reduction of Rs. 45.00 crore *i.e.* 20% at RE stage during 2015-16, the Department have stated that the drastic reduction of Rs. 45.00 crore *i.e.* 20% at RE stage during RE 2015-16 (Plan) was apparently due to the overall cut effected by the Government of India, Ministry of Finance in the plan allocation of DARE/ICAR in RE 2015-16.

(3) NATURAL RESOURCE MANAGEMENT INCLUDING NICRA

3.23 Natural Research Management Division is engaged in developing location specific, cost effective and eco-friendly technologies for conservation and management of natural resources through the network of 06 Central Research Institutes, 03 Research Complexes, 03 Project Directorates, 01 Bureau, 02 National Research Centres, 03 network projects and 10 All India Coordinated Research Projects in the country. The research programmes are being carried out within the perspective of different themes, viz.; soil quality assessment, micro level land use planning, integrated soil-water-nutrient management, watershed management, nutrient and water use efficiency, Resource Conservation Technologies, crop diversification, dryland/arid agriculture, abiotic stress management, climate resilient agriculture, conservation agriculture, organic farming, bioremediation of contaminated soils and water, waste water utilization, bio-fortification, biofuels, coastal agriculture, agricultural disaster management, solid waste management, precision agriculture, IFS model and integrated agricultural systems simulation modeling. The programmes are being implemented in farmers' participatory mode to develop location specific, cost effective, climate resilient technologies in view resource availability with the farmers', traditional indigenous technology knowhow and grass-root farm innovations to enhance agricultural production, productivity and profitability in the country. It is observed that under the head of Natural Resource Management only 80.69% (BE) of allocations were made as against an earmarked outlays of Rs. 2183.50 crore for XIIth Plan. Funds have been further reduced at RE stage. Status of allocation and utilistaion of funds during XIIth Plan are as follows:-

(Rs. in crore)

Year	BE	RE	Actual Expenditure
2012-13	387.00	260.00	239.66
2013-14	310.00	245.00	232.72
2014-15	325.00	235.00	220.99
2015-16	370.00	321.00	241.04
2016-17	370.00	-	-
Total	1762.00	1061.00	934.41

^{*}Actual Expenditure upto December, 2015.

- 3.24 When asked about the proposals put up by the Department for NRM during 2016-17, the Department have stated that they had proposed an amount of Rs. 6952.24 crore for BE of 2016-17, in which an allocation of Rs. 670.63 crore was made in respect of NRM. However, the plan BE for 2016-17 communicated by Ministry of Finance was Rs. 3700.00 crore out of which the allocation made by the Department to NRM was 370.00 crore.
- 3.25 On the query of the Committee regarding reasons for drastic reduction of Rs. 49 crore *i.e.* about 13.24% at RE stage during 2015-16 under this head, the Department have stated that drastic cut in the allocation of NRM Division in the RE 2015-16 was apparently due to the overall cut effected by the Government of India, Ministry of Finance in the plan allocation of DARE/ICAR in RE 2015-16.
- 3.26 When asked about the impact of reduced allocations during XII Plan on implementations of Research work in institutes under division of NRM, the Department have stated that though the reduced allocation has been a cause of concern for the Division, adequate measures were taken to ensure that no major programmes suffered due to paucity of funds. All the proposals received from the Institutes under the NRM Division were critically evaluated and the limited funds which were allocated to the division were diverted to critical areas needing focused attention for accomplishing the targets set for the year. No new activities were undertaken during the year for want of adequate provision in the budget.

NATIONAL INNOVATIONS ON CLIMATE RESILIENT AGRICULTURE (NICRA)

- 3.27 National Innovations on Climate Resilient Agriculture (NICRA) is a network project of the Indian Council of Agricultural Research (ICAR) launched in February, 2011. The project aims to enhance resilience of Indian agriculture to climate change and climate vulnerability through strategic research and technology demonstration. The research on adaptation and mitigation covers crops, livestock, fisheries and natural resource management. The project consists of four components *viz*. Strategic Research, Technology Demonstration, Capacity Building and Sponsored/Competitive Grants. When asked about the number of research stations functioning under NICRA Project in the country, the Department have stated that details of Research Stations functioning under NICRA Project in the country are enclosed at Annexure-VIII. The details of nos. of centres are as under:
 - (a) Strategic Research Centres 40
 - (b) Sponsored Grants Component Centres 6

- (c) AICRPAM Centres 25
- (d) AICRPDA Centres- 23
- (e) Technology Demonstration Component NICRA- 129

3.28 When asked to furnish State-wise details of fund allocations to Institutions/Research Station/KVKs under NICRA project during 2014-15 & 2015-16, the Department have stated that details of State-wise fund allocation to Institutions/Research Stations/KVKs under NICRA Project during 2014-15 & 2015-16 are enclosed at Annexures IX & X respectively. An amount of Rs. 6500.00 lakhs was allocated during the year 2014-15 and an amount of Rs. 9500.00 lakhs was allocated during the year 2015-16.

(4) ANIMAL SCIENCE

3.29 Animal Science Division coordinate and monitors research programmes for sustainable enhancement of productivity and improvement in health status of livestock and poultry in the country through its 19 Research Institutes and their Regional Centers, 02 Deemed Universities, 08 National/Central Research Institutes, 01 National Bureau, 01 Directorate, 01 Project Directorate, 06 National Research Centers and 04 Krishi Vigyan Kendras. There are 07 All India Coordinated Research Projects, 08 Networks, 04 Outreach, 03 Seed projects (poultry, sheep and pig) and 1 Consortia Platform (Vaccines and Diagnostics) in operation in different parts of the country at different ICAR institutes, State Agricultural/Veterinary Universities, State Animal Husbandry Departments and Non-Governmental Organizations. The increasing demand for livestock products in the near future is expected to lead to a livestock revolution. Much of the anticipated increases in demand will have to be met from small-scale, rainfed, mixed crop-livestock systems which predominate in India. Livestock production is projected to increase substantially over the next four decades, mainly in countries of low or middle income. This require total greenhouse gases (GHG; carbon foot print) per unit of milk/meat need to reduced considerably. Herein lies the real challenge for mitigation of greenhouse gas emissions by livestock, particularly for the research under the National Innovations in Climate Resilient Agriculture. The future thrust areas in Animal Science Research would include: molecular signatures for indigenous livestock resources, exploitation of genetic resistance for disease management, Stem cell research for animal health and production, Improvement of utilization of low quality roughages through in vivo and in vitro manipulations, production of nutrigenomics, nutraceuticals, functional foods, probiotics, mitigation of methane production from livestock, development of diagnostics using nanotech tools, transgenic chicken and pigs for pharmaceutical production, development and improvement of technologies for value addition, shelf life enhancement and quality assurance of livestock and poultry products.

3.30 It is observed that under the head of Animal Science only 78.74% (BE) of allocations were made as against on earmarked outlays of Rs. 1543.00 crore for XII Plan. Funds have been further reduced at RE stage. Status of allocation and utilistaion of funds during XII Plan are as follows:—

(Rs. in crore)

Year	BE	RE	Actual Expenditure
2012-13	250.00	194.00	191.63
2013-14	225.00	189.98	190.22
2014-15	230.00	160.00	153.98
2015-16	250.00	226.00	148.73*
2016-17	260.00		
Total	1215.00	769.98	684.56

^{*}Actual Expenditure upto December, 2015.

3.31 When aksed about the reasons for reduction of Rs. 24 crore *i.e.* about 9.6% at RE stage during 2015-16 under this head, the Department have stated that the drastic cut in the allocation of Animal Science Division in the RE 2015-16 was apparently due to the overall cut effected by Ministry of Finance, Government of India in the plan allocation of DARE/ICAR in RE 2015-16.

3.32 On the query of the Committee regarding impact of reduced allocations during XII Plan on implementation of research work in institutes under division of Animal Science, the Department have stated that though the reduced allocation has been a cause of concern for the Division, adequate measures were taken to ensure that no major programmes suffered due to paucity of funds. All the proposals received from the Institutes under the Division were critically evaluated and the limited funds which were allocated to the division were diverted to critical areas needing focused attention for accomplishing the targets set for the year.

(5) FISHERIES SCIENCE

3.33 **Fisheries Science Division** is undertaking research and academic programmes in fisheries and aquaculture sector in the country through the network of 05 resource specific research institutes, 01 Deemed University, 01 National Bureau and 01 Directorate. Research and development programmes in the field of aquaculture, resources

assessment, population dynamics, fish health monitoring, fish nutrition and feed formulation, genetics and biotechnology, harvest and postharvest technology and human resource development has been instrumental for significant growth in the fisheries sector. The research thrust has been on sustainable management of exploited stocks and targeting the under-exploited & unconventional resources of Exclusive Economic Zone (EEZ) and identification of potential fishing zones; standardization of mariculture activities and stock enhancement through sea ranching; management of inland open water fishery resources and standardization of management protocols for production enhancement from reservoirs, floodplain wetland; assessment of hill fishery resources for formulating strategies for sustainable fishery exploitation including sport fisheries; research support for developing sustainable, eco-friendly and techno-economically viable hatchery & culture technologies for different eco-systems; diversification and intensification of culture practices in freshwater and brackishwater and utilization of inland saline soils for aquaculture; development of a database on fish biodiversity by cataloguing and characterization of the resources; improvisation in design of fuel efficient and resources specific craft & gear; development of protocols for hygiene regulations, quality control and food safety in fresh and processed fish; develop technologies for value addition, reducing post-harvest losses, waste utilization and by products from un-conventional fish species, and human resource development in the specialized disciplines of fisheries and aquaculture and related subject areas to create a cadre of fishery professionals to support the sector.

3.34 It is observed that under the head of Fisheries Science only 65.71% (BE) of allocations were made as against on earmarked outlays of Rs. 735.00 crore for XII Plan. Funds have been further reduced at RE stage. Status of allocation and utilisation of funds during XII Plan are as follows:—

(Rs. in crore)

Year	BE	RE	Actual Expenditure
2012-13	103.00	69.00	68.82
2013-14	85.00	70.00	69.77
2014-15	95.00	65.00	63.73
2015-16	100.00	78.00	53.88*
2016-17	100.00	_	_
Total	483.00	282.00	256.2

^{*}Actual Expenditure upto December, 2015.

- 3.35 When asked about the reasons for reduction of Rs. 22 crore *i.e.* about 22% at RE stage during 2015-16 under this head, the Department have stated that the drastic cut in the allocation of Fisheries Division in the RE 2015-16 (Plan) was apparently due to the overall cut effected by the Government of India, Ministry of Finance in the plan allocation of DARE/ICAR in RE 2015-16.
- 3.36 On the query of the Committee regarding impact of reduced allocations during XII Plan on implementation of research work in institutes under division of Fishery Science, the Department have stated that the ongoing research programmes of the fisheries Research Institutes continued on existing basis with the reduced allocation of plan funds during 2015-16. However, the research work in Institutes was prioritized as per the availability of funds.

(6) AGRICULTURAL ENGINEERING

- 3.37 Agricultural Engineering Division is mandated to plan, coordinate and monitor R&D programmes and serve as an information repository in Agricultural Engineering to make Indian agriculture profitable, sustainable and globally competitive enterprise through engineering interventions. It is involved in development and demonstration of technologies related to mechanization of production and post-production agriculture using conventional and non-conventional energy sources and includes mechanization of irrigation and drainage activities; post-harvest and value addition of agricultural products and by products. Division has 06 research institutes, 06 All-India Coordinated Research Projects and 01 All-India Network Programme in the country for Agricultural Engineering Research. Five consortia Research Platforms (Precision Agriculture and Farm Mechanization, Energy in Agriculture, Secondary Agriculture, Health Foods, and Natural Fibres) and two All-India Network Programmes (Conservation of Lac Insect Genetic Resources, and Agricultural Bioinformatics and Computational Biology) have been initiated during the XII Plan.
- 3.38 Under the major head Agricultural Engineering following allocations have been made against earmarked outlays of Rs. 1100 crore for XII Plan. Status of allocation and utilization of funds during XII Plan are as follows:—

(Rs. in crore)

Year	BE	RE	Actual Expenditure
1	2	3	4
2012-13	78.00	52.00	51.59
2013-14	75.00	55.00	54.60

1	2	3	4
2014-15	85.00	65.00	64.62
2015-16	90.00	82.00	57.63*
2016-17	100.00		
Total	428.00	254.00	228.44

^{*}Actual Expenditure upto December, 2015.

- 3.39 When asked about the reasons for low allocations of about 38.90% (BE) of the plan period under the head against XII Plan allocations, the Department have stated that reduced allocation (BE) of Agriculture Engineering in the plan period under the head against XII Plan allocations was due to the overall cut effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR.
- 3.40 On the query of the Committee regarding impact of reduced allocations during XII Plan on implementation of research work in institutes of Agricultural Engineering, the Department have stated that though the reduced allocation has been a cause of concern for the Division, adequate measures were taken to ensure that no major programmes suffered due to paucity of funds. All the proposals received from the Institutes under the Division were critically evaluated and the limited funds which were allocated to the division were diverted to critical areas needing focused attention for accomplishing the targets set for the year.

Biomass Gasification Based Power Plants

- 3.41 The Department in their Annual Report (2015-16) have stated that Bioreactor was developed for accelerated composting. Energy audit of biomass gasification based power plants (seven plants having total capacity 67.5 MW) in Punjab State revealed that these plants can generate 10 billion units of electricity worth Rs. 6000 crore every year. The Committee have been informed that ICAR-CIAE Bhopal in collaboration with ICAR-IISS, Bhopal has developed Bioreactor of 100 kg capacity per batch for 50 days. The ICAR-IISS Bhopal developed microbial consortium which can be used in this reactor for composting. Cost of construction of one Bioreactor is Rs. 50,000. On the query of the Committee regarding efforts of commercialization of the technology, the Department have informed that the technology is yet to be commercialized.
- 3.42 When asked about the possibilities of construction of this Bioreactor in rural areas of the country, the Department have informed that construction of bioreactor is possible in rural area where electricity is available.

- 3.43 When asked about the efforts being made for development of small, effective and economical agricultural implements that can be useful for small and marginal farmers in the country, the Department have informed that details of agricultural implements developed by the institutions during the last 5 years are given below:
 - I. The ICAR-CIAE and 25 centres of AICRP on Farm Implements & Machinery located in different parts of the country are conducting research & development for design and development of improved farm equipment & machinery for different agro-climatic regions, crops and operations for use by small and marginal farmers. Some of the important equipment developed under the project during last 5 years are self-propelled hydraulic platform for fruit harvesting and canopy management in orchards, tractor operated sorghum harvester, package of improved equipment for small millets/ kodo, tractor operated fertilizer dibbler for ratoon sugarcane, power weeder for SRI system of paddy cultivation, tractor mounted root crop harvester-cumelevator, tractor operated garlic planter, tractor operated small seed planter, tractor operated check basin former, power operated sugarcane sett cutter, tractor operated turmeric digger, tractor operated Ananta groundnut planter cum boom sprayer, power tiller operated inclined plate planter, Pant axial flow multi-crop thresher for hilly region, Pant fertilizer band placement cum earthing up machine, power tiller operated multi-crop seed drill-cum-planter and two row direct rice seeder. These equipment can be used by small and marginal farmers on custom hiring basis.
 - II. Some of the important ergonomically improved small and tools and equipment developed under AICRP on ESA are hand operated coconut dehusker, pedal operated maize dehusker sheller, pedal operated arecanut dehusker, pedal operated cashewnut sheller, palmira tree climber, improved large cardamom harvesting knife and manual coconut climber. Women friendly farm tools and equipment developed under the project are fruit harvester, pedal operated paddy thresher, three row rice transplanter, arecanut scarifier, arecanut dehusker and cono weeder.
- 3.44 When asked about the efforts being made by the ICAR to ensure widespread availability of agricultural implements developed by ICAR institutes to the farmers at reasonable prices, the Department have informed that Prototypes of improved implements developed at

the ICAR Institutes are made available to the State Departments of Agriculture for creating awareness and early adoption. Depending upon requirements of various stakeholders at the local level, the State Governments provide subsidies to make the machines available to farmers at reasonable prices. In addition, the ICAR-CIAE Bhopal also makes available a limited quantity of developed machines to farmers on demand. The AICRP on Farm Implements and Machinery is having 8 Prototype Manufacturing Workshops at PAU, Ludhiana, TNAU, Coimbatore, PJTSAU, Hyderabad, NEH, Barapani, MPKV, Rahuri, IISR, Lucknow, BAU, Ranchi and CIAE, Bhopal. These centres are multiplying research prototypes and supply these to other centres for multi-location trials and promote their manufacturing by local manufacturers. These centres also cater to the needs of the farmers for new farm equipment at reasonable prices for the period during which manufacturers take up their design for production.

3.45 Development of small farm implements and machineries which can be used by small and marginal farmers in the country is prerequisite for reduction of drudgery and as a step to reduce cost of agriculture. When asked about efforts being taken by the ICAR for development of cost effective and small farm implements and machinaries, the representative of the Department has stated as under:

'...Sir, I will answer for the machinery part of the query. In 24 AICRP Centres across the country and in our five institutes we are doing research in machinery development. As our hon. Member has rightly observed that small tools are very important for our farmers and we have now oriented our research towards developing small farm mechanisation tools. In this year, we have given some money to IARI to create a model mechanised farm of one hectare, which would become a model farm for the country where people can come and see. Tools and equipment are available. They are to be brought/shown to the people. This is what we are doing at IARI this year. Once this becomes successful, we will create it in many places across the country. So, small tools are being developed by us, and one institute at Odisha is developing women-friendly tools also. They are also brought to the public now. So, they will come in the public very soon. ...'

Further elaborating on the issue, the representative of the Department has stated as under:

''...सर, छोटे औजारों के बारे में डॉक्टर साहब ने बताया, उन पर शोध चल रही है। उसके अलावा हमारे पास जो विंडो ऑफ ऑपरेशन होता है, समय होता है, कोई भी किसान की खेती कार्य के लिए होता है, वह कम होता है। अभी जैसा आपने कहा है कि मनरेगा आने के बाद लेबर्स भी कम मिलने लगे हैं। हम लोगों ने 121 जगहों पर कस्टम हार्यारंग सेन्टर का एक मॉडल बनाया है, वह बहुत कारगर सिद्ध हो रहा है, क्योंकि हम उसके द्वारा किसानों को वह लोकली मुहैया कराते हैं, तािक स्मॉल स्वींग टाइम और प्लाउइंग विंडो में वह अधिक से अधिक काम कर सकते हैं। स्मॉल इक्विपमेंट पर भी काम हो रहा है, उसके अलावा जो दूसरा रास्ता है, हम उसको भी अख्तियार कर रहे हैं। उसके परिणाम बहुत अच्छे हैं। कई जगहों पर, स्टेट गवर्नमेंट और सेन्ट्रल गवर्नमेंट, एक पॉलिसी इंस्ट्रमेंट की तरह कैसे आगे ले जाना है, उसके बारे में भी सोचा है।...''

- 3.46 On the query of the Committee regarding development of agriculture implements that can utilize animal power, the representative of the Department has stated as under:
 - '....There is an AICRP scheme on animal energy. We are developing equipment or implements that use single bullock. For the information of the Committee, on 18th March, in 30 centres across the country, there was a machinery demonstration *mela*. In each centre, there were 3,000 to 5,000 farmers who came and saw the machinery in operation....'

(7) AGRICULTURAL EXTENSION

3.47 Agricultural Extension Division has mandate of dissemination of available agricultural knowledge and technologies to end users through 01 Directorate of Knowledge Management in Agriculture (DKMA) and one plan Scheme on continuation and establishment of new Krishi Vigyan Kendras (KVKs). The Krishi Vigyan Kendra scheme is concerning to technology assessment, refinement and demonstration of technology/ products and its transfer through training of farmers and extension personnel, besides organizing extension programmes for creating awareness on improved agricultural technology. The scheme is being monitored through eight Zonal Project Directorates. The major activities of DKMA include knowledge sharing through publication of journals and information dissemination through print & electronic media. ICAR has 642 KVKs in the country and proposed to set up 109 more KVKs in the country. The initiatives under KVKs include creation of Technology information unit, Mini seed processing facility, Micro nutrient analysis facility, Solar panel, KVK Net, e-Farmers, Creation of Disaster Management and Farm innovation Fund. ICAR has implemented the programmes for the welfare of farmers and agricultural development includes Farmer FIRST, which will enable to move beyond the production and productivity and to privilege the complex, diverse & risk prone

realities of majority of the farmers through enhancing farmers-scientists contact with multi stake holders-participation. Realizing the importance of rural youth in agricultural development, ICAR has initiated a programme on ARYA (Attracting and Retaining Youth in Agriculture). To enhance the direct interface of scientists with the farmers, an innovative initiative has been launched as "Mera Gaon Mera Gaurav" which will hasten the lab to land approach. The objectives of these initiative is to provide farmers with required information, knowledge and advisories on regular basis throughout the country. Under this head following allocations were made till 2016-17 as against XII Plan earmarked outlays of Rs. 5739.56 crore:—

(Rs. in crore)

Year	BE	RE	Actual Expenditure
2012-13	491.67	435.39	410.89
2013-14	496.88	527.25	499.09
2014-15	586.50	533.60	523.50
2015-16	644.85	656.50	282.94
2016-17	745.00		
Total	2964.9	2152.74	1716.42

^{*}Actual Expenditure upto December, 2015.

3.48 On scrutiny of allocation, it emerged that only 51.65% (BE) allocations were made against earmarked outlays for the scheme during XII Plan. When asked about the reasons for such low allocations of about 51.65% only for under the head against XII Plan allocations, the Department have informed that reduced allocation (BE) of Agricultural Extension Division in the plan period under the head against XII Plan allocations was due to the overall cut effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR. On the above issue, the representative of the Department have stated as under:

[&]quot;जहां तक कृषि विज्ञान केन्द्र का प्रश्न है, चूंकि आई.सी.ए.आर. ऑटोनोमस सोसायटी है, वहां क्वार्टरली बेसिस पर पैसा रिलीज होता है, अपफ्रण्ट उनको हम कम्युनिकेट कर देते हैं कि इस वर्ष में कितना पैसा मिलने की उम्मीद है। उन्हें पता रहता है कि इतनी राशि उन्हें उपलब्ध होगी और क्वार्टरली बेसिस पर हम पैसा उनको रिलीज करते हैं।"

3.49 On the query of the Committee regarding impact of reduced allocations on implementation of scheme, the Department have informed that due to the inadequate allocation of funds the new initiatives, infrastructure development and opening of new KVKs were affected. When asked about the plans of Department to enhance number of KVKs in the country keeping in view of paucity of Agriculture Extension Services to the farmers in the country, the Department have informed that it is approved to establish 109 more KVKs in newly created districts, one additional KVK in larger districts, border and mountainous districts. On the query of the Committee about **submission of proposal** for the same to the Government, the Department have informed that it is approved in the XII Plan EFC to create KVKs in all newly created districts and one additional KVKs in 59 larger districts and one additional KVK in 05 border and mountainous districts. On the above issue, the representative of the Department have stated as under:—

"सर, आपने कृषि विज्ञान केन्द्र का जिक्र किया, तो इस बार तो हमने उसके लिए, हमें जो 3700 करोड़ रुपए मिले हैं, उसमें से अगले साल के लिए 750 करोड़ रुपए का प्रावधान रखा है। वह 20% है। सर, अभी 643 कृषि विज्ञान केन्द्र हैं और अभी 109 आने का प्रावधान है। अगर उसके लिए पैसे का सही प्रावधान न हो, तो उससे हमें बहुत तकलीफ होगी।"

3.50 When asked to furnish details of facilities being provided to the farmers at KVKs, the Department have informed that the technologies generated by Agricultural Universities and ICAR institutes are incorporated in the action plan of KVK Programmes. These latest technologies are further disseminated among the farmers through On-Farm Trials, Front Line Demonstrations, Training Programmes, Extension Activities, etc. Besides, KVKs are conducting different awareness programmes for the farmers about R&D work being done by ICAR institutes through various activities like Kisan melas, Field days, film & TV Shows, newspaper coverage, exposure visits, camps, diagnostic visits, Kisan Mobile agro-advisories and voice messages. Many technological products like seeds, planting materials, fingerlings, bio-products, vermicomposts etc. are also produced by KVKs and provided to farmers.

3.51 On the query of the Committee regarding provision of requisite infrastructure and manpower (scientific, technical and administrative) at KVKs to enable them to provide facilities to the farmers as envisaged, the Department have informed that there is a provision of 16 staff in each KVK including Senior Scientist & Head and six Subject-Matter Specialists [SMS]. Each KVK is provided modest infrastructure like

Administrative Building, Farmers Hostel, two Demonstration Units etc. State-wise details of Infrastructure at KVKs are given hereunder:—

Sl.No	o. State	Administrative Building	Farmers Hostel	Demo. Unit	SWTL	
1	2	3	4	5	6	
1.	Andaman and Nicobar Islands	1	1	2	1	
2.	Andhra Pradesh	16	17	21	11	
3.	Arunachal Pradesh	12	0	12	2	
4.	Assam	16	12	16	10	
5.	Bihar	37	37	51	24	
6.	Chhattisgarh	15	10	0	5	
7.	Delhi	1	0	0	0	
8.	Goa	2	1	1	1	
9.	Gujarat	25	25	39	19	
10.	Haryana	18	18	7	15	
11.	Himachal Pradesh	10	12	5	11	
12.	Jammu and Kashmir	12	14	5	9	
13.	Jharkhand	21	22	35	16	
14.	Karnataka	29	27	15	24	
15.	Kerala	14	9	9	13	
16.	Lakshadweep	0	0	0	1	
17.	Madhya Pradesh	43	44	1	29	
18.	Maharashtra	42	42	52	30	
19.	Manipur	8	2	8	3	
20.	Meghalaya	2	2	2	1	
21.	Mizoram	8	8	8	3	
22.	Nagaland	7	2	6	2	
23.	Odisha	27	27	1	14	
24.	Puducherry	2	1	2	1	

1	2	3	4	5	6
25.	Punjab	20	20	13	15
26.	Rajasthan	31	29	31	28
27.	Sikkim	4	0	4	2
28.	Tamil Nadu	30	29	26	27
29.	Telangana	12	13	14	7
30.	Tripura	2	1	4	2
31.	Uttarakhand	13	13	13	6
32.	Uttar Pradesh	66	58	58	44
33.	West Bengal	17	17	32	13
	Total	563	513	493	389

3.52 On the above issue, the representative of the Department have stated as under:—

''...महोदय, बहुत सारे सवाल कृषि विज्ञान केन्द्रों के बारे में आए हैं। चूंकि आप कृषि विज्ञान केन्द्रों को बहुत नजदीक से देखते हैं और वहां भी आपका जाना होता है, तो एक प्रश्न था कि कितने के.वी.के. में फार्मर्स होस्टल्स हैं? लगभग 513 कृषि विज्ञान केन्द्रों में फार्मर्स होस्टल्स बने हुए हैं और कुछ नए के.वी.के. अभी पिछले एक-दो सालों में आए हैं। उनके लिए हमने फंड एलॉकेशन किया हुआ है। उसकी जैसे ही उपलब्धता होगी, हम उस कार्य को भी करेंगे। स्वॉयल टेस्टिंग के ऊपर भी बहुत सारे सवाल थे, तो अभी हमारे 389 के.वी.के. में स्वॉयल टेस्टिंग लेब्स हैं। बाकी में नहीं हैं, लेकिन हमने स्वॉयल टेस्टिंग कीट्स अभी 400 के.वी.के. को दिया है, जो हमारे आई.सी.ए.आर. के इंस्टीट्यूट्स ने बनाए हैं। दूसरा, फार्म मशीनरी का भी एक प्रश्न था, तो 121 केवीकेज हैं, जो निक्रा प्रोजेक्ट है हमारा क्लाइमेट रेजिलिएंट पर, इसके लिए कस्टम हायरिंग की फैसलिटी हमने विलेज लेवल पर की हुई है और नई-नई मशीनरीज का एक सेट दे रहे हैं जो किसान ही कस्टम हायरिंग पर उसको चलाते हैं और यूज भी करते हैं। यह नया मॉडल है और इसको और भी आगे ले जाने का प्रस्ताव है।...''

3.53 When enquired about the facility of artificial insemination at KVKs, the representative of the Department have stated as under:

''महोदय, यह हर जगह नहीं है। जहां वेटनरी हैं, उनमें पोस्ट किया है। सर, आईसीएआर ने एक प्रस्ताव बनाया है केवीकेज को स्ट्रेंग्थेन करने के लिए और स्टॉक पोजीशन जो साइंटिस्ट की 6 थी, उसे 10 करने का प्रस्ताव है। फाइनेंस मिनिस्ट्री के यह विचाराधीन है। यह जैसे ही आ जाएंगे, इसमें वेटरेनियंस के पद बढ़ेंगे और इस कार्यक्रम को भी हम ले पाएंगे, जैसा आपका सुझाव है। हर केवीके में अभी 6 साइंटिस्ट्स हैं और इनको 10 करने का प्रस्ताव है।''

3.54 On the query of the Committee regarding steps being taken by the Department to upgrade the number and quality of agricultural extension services being provided in KVKs in the country, the Department have stated that, the sanctioned staff strength of a KVK has been increased from 16 to 22 in this plan including 4 more SMSs. The proposal has been approved in principle by the Union Cabinet and this Division had thereafter forwarded the proposal to Ministry of Finance for their approval. Further a number of new activities like KVK, Farmer FIRST etc. are envisaged in this Plan to improve the quantity and quality of the Frontline Extension activities.

3.55 On the query of the committee regarding efforts being taken by the Department to encourage private investment in the field of agricultural extension services in the country, the Department have informed that KVKs are provided 100% financial assistance by the Government of India.

3.56 When asked to furnish details of KVKs in the country as on date, the Department have informed that total number of KVKs is at present 642. Host Institution-wise distribution of 642 KVKs is given as under:

Sl.No.	States/UTs	SAU/ CAU	ICAR	NGO	PSU	State Govt.	CU/DU/ OEI	Total
1	2	3	4	5	6	7	8	9
	ndaman & Nicobar lands	0	3	0	0	0	0	3
2. Ar	ndhra Pradesh	23	3	8	0	0	0	34
3. Ar	runachal Pradesh	1	3	0	0	10	0	14
4. As	ssam	23	2	0	0	0	0	25
5. Bi	har	31	1	5	1	0	0	38
6. Cl	hhattisgarh	20	0	0	0	0	0	20
7. De	elhi	0	0	0	1	0	0	1
8. G	oa	0	1	0	0	1	0	2

1	2	3	4	5	6	7	8	9
9.	Gujarat	17	2	7	0	0	3	29
10.	Haryana	14	2	2	0	0	0	18
11.	Himachal Pradesh	12	0	0	0	0	0	12
12.	Jammu & Kashmir	18	1	0	0	0	0	19
13.	Jharkhand	16	3	5	0	0	0	24
14.	Karnataka	24	2	5	0	0	0	31
15.	Kerala	7	4	3	0	0	0	14
16.	Lakshadweep	0	0	0	0	1	0	1
17.	Madhya Pradesh	39	1	7	0	0	0	47
18.	Maharashtra	16	1	26	0	0	1	44
19.	Manipur	1	5	2	0	1	0	9
20.	Meghalaya	0	2	0	0	3	0	5
21.	Mizoram	1	0	0	0	7	0	8
22.	Nagaland	0	4	0	0	4	1	9
23.	Odisha	31	2	0	0	0	0	33
24.	Puducherry	0	0	0	0	3	0	3
25.	Punjab	20	0	0	0	0	0	20
26.	Rajasthan	33	3	4	0	0	2	42
27.	Sikkim	0	1	0	0	3	0	4
28.	Tamil Nadu	17	0	11	0	0	2	30
29.	Tripura	0	1	1	0	2	0	4
30.	Uttar Pradesh	49	5	10	0	0	4	68
31.	Uttarakhand	11	2	0	0	0	0	13
32.	West Bengal	11	1	3	1	0	2	18
	Total	435	55	99	3	35	15	642

3.57 When asked to explain norms for establishment of KVKs in the country, the Department have informed that it is the policy of the Government to create at least one KVK in each of the rural districts. However, it is also proposed to establish two KVKs in larger districts, border districts and mountainous districts as the existing KVKs in such

districts find it very difficult to serve the farming community due to larger geographical area or difficulty of the terrain. The norms for establishment of KVKs are as under:—

- (a) about 20 ha of land is required for establishment of a KVK.
- (b) The SAUs/CAU/CU/DU/State Departments/PSU/ICAR Institutes/Other Educational Institutions/NGOs working in the field of agriculture are eligible to submit the proposals for a KVK in the rural District.
- (c) In the case of NGO, it should have
 - (1) Minimum five years of experience of working in the field of agriculture, rural development and/or natural resource management with appropriate governance structure and financial records supported by valid documents.
 - (2) Willingness of the host organization to share its resources for growth and effective functioning of the KVK.
 - (3) Willingness and commitment to run the KVK strictly in terms of objectives of ICAR as enunciated in rules and byelaws of ICAR Society.

The Department have also stated that at present number of KVKs are not sufficient to cater the increased expectations and demand on the part of KVK. Therefore it was approved in the XII Plan to establish more KVKs. Out of 121 approved, 12 KVKs have been established.

3.58 When asked to furnish details of assistance being provided by KVKs to the farmers, the Department have informed that the major activities undertaken by the KVKs benefiting farmers during last three years and the current year 2011-12 to 2015-16 (upto December 2015) are enclosed at Annexure-XI.

(8) AGRICULTURAL EDUCATION

3.59 Agricultural Education Division strives for maintaining and upgrading quality, relevance and strengthening of higher agricultural education through a network of 73 Agricultural Universities. A scheme on "Strengthening and Development of higher Agricultural Education in India" is being implemented for Up-gradation of academic environment by modernization and strengthening of educational structures, laboratories, computer labs, ICT facilities/NISAGENET, smart classrooms,

state of art equipments, support for effective course curriculum delivery, educational tours, text book/manual preparations, and strengthening library facilities including, e-resources. Three new programmes under Niche Area of Excellence sanctioned in XII Plan and total of 28 programmes were supported during the year 2015-16. 21 new Experiential Learning Modules supported till date and total of 406 modules have been sanctioned till date. The monthly stipend of the students of Agriculture undergraduate has been enhanced to Rs. 3000/- from the existing Rs. 750/- for the component of Rural Agriculture Work Experience. To attract talent in agriculture and to reduce inbreeding the stipend under National Talent Scholarship-UG has been enhanced to Rs. 2000/- per month/student and National Talent Scholarship—PG initiated with an approved stipend of Rs. 3000/ per month/student. The hallmark of HRD Programmes is to attract young talents by offering additional opportunities for scholarships/ fellowships/internships, faculty and staff capacity building in the state of the art teaching and learning strategies to build a supportive base for the ambitious efforts of ICAR to revitalize curriculum and transform campus culture and address faculty shortage in cutting edge areas by utilizing the talent of superannuated professionals. The HRD section is sanctioned with approximately Rs. 350 crore during XII Plan for financial support of proposed programmes like ICAR Post Doctorate Fellowships, Aspire Programme to attract young talents, ICAR Emeritus Professor Chairs, ICAR UG & PG Scholarships/Fellowships, ICAR Overseas Associateships and to strengthen and broaden capacity building mechanism for faculty and teachers in Agricultural Universities. A total of 2,205 and 2,765 candidates were recommended for admission in State Agricultural Universities through counselling for 20th All-India Entrance Examination for Admissions to UG and PG programmes, respectively in agriculture and allied subjects. 474 JRF were awarded in 20 major subject groups (including 91 Subjects) for Master's Degree Program. A total of 4797 candidates appeared in the examination, out of 5628 applicants, and 494 candidates were finally admitted for Ph.D. admissions in 67 AUs. Based on the merit, a total of 182 Senior Research Fellowships were awarded in 16 major subject groups. 103 summerwinter schools/short courses and 46 CAFT Training Programmes were organized for capacity building of about 2000 scientists/faculty of National Agricultural Research System in cutting-edge areas. 21 vacant slots of Emeritus Scientists filled by tapping brain and skill bank of the outstanding superannuated professionals of NARS in innovative areas of Agricultural Research. Under the major head Agricultural Education following allocations have been made against earmarked outlays of

Rs. 4000 crore for XII Plan. Details of allocations and expenditure under this head during XII Plan are as under:—

(Rs. in crore)

Year	BE	RE	Actual Expenditure
2012-13	583.00	426.00	513.03
2013-14	475.00	405.00	359.89
2014-15	561.20	380.00	374.75
2015-16	780.00	560.00	306.23*
2016-17	600.00		
Total	2999.2	1771.00	1553.90

^{*}Actual Expenditure upto December, 2015.

- 3.60 When asked to explain reasons for allocations of only 74.99% (BE) for the plan period under the head against XIIth plan allocations, the Department have informed that reduced allocation (BE) of Agricultural Education Division in the plan period under the head against XII Plan allocations was due to the overall cut effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR.
- 3.61 On the query of the Committee regarding impact of lower allocations on implementation of R&D work in institutes related to Agricultural Education, the Department have informed that due to lower allocation, the following sub-components of the Plan Scheme, 'Strengthening and Development of Higher Agricultural Education in India' could not be implemented.
 - (a) Strengthening and Enhancing Research and Instructional capabilities of Universities (an amount of Rs. 500 crore was allocated for this component).
 - (b) Support for Old/Historical colleges (an amount of Rs. 250 crore was allocated for this activity).
- 3.62 On observation of the Committee about failure of the Department to utilize the allocated funds during the 12th plan period, the Department have stated that The EFC for the Plan scheme, 'Strengthening and Development of Higher Agricultural Education in India' was cleared by the Cabinet on 3rd November, 2015. This delay in clearance of major scheme led to reduced utilization of allocated funds.

(9) VACANCY OF SCIENTIFIC/TECHNICAL/ADMINISTRATIVE POSTS IN INSTITUTES OF ICAR

3.63 Availability of adequate scientific, technical and administrative staffs in Institutes of ICAR is pre-requisite for better performance. However, the Committee have often observed that large numbers of these post remain vacant. When asked about details of vacancies of scientific, technical and administrative posts in institutes of ICAR as on date, the Department have stated that vacancies of scientific posts at ICAR Institutes as on date are indicated below:

(a)	Director/Joint Director	_	22
(b)	Principal Scientist	_	339
(c)	Senior Scientist	_	192
(d)	Scientists	_	340*

(*Adveritsement made for vacancies for ARS-2015 - 97 Conversion of Sr. Scientist posts to Scientist posts -145)

Vacancies of Administrative & Technical posts are as under:

	Administrative		Technical	
Sanctioned Posts	4877	7157		
Employees	Category 'A'	336	Category 'I'	3993
in Position	Category 'B'	1239	Category 'II'	2650
	Category 'C'	3302	Category 'III'	514
Vacancies	Category 'A'	55	Category 'I'	1123
	Category 'B'	320	Category 'II'	445
	Category 'C'	712	Category 'III'	35

3.64 When asked about efforts being made by the ICAR to fill up these vacancies, the Department have stated that recruitment of ICAR scientists is a continuous process. All possible steps are being initiated to get the vacancies of agricultural scientists, administrative posts filled up on priority basis through Agricultural Scientists Recruitment Board (ASRB). In the recent past more than 1000 different scientific posts in different levels have been advertised/filled. The final result of 57 posts of AO, F&AO and AD (OL) of Group 'A' have been declared by ASRB. Further process of completing the pre-joining formalities are being initiated. Recruitment action for filling up 309 Group B posts of

Assistants pertaining to ICAR Hqrs. and Institutes is in final stage. The final result is likely to be declared in April, 2016 and in the same way Recruitment action for filling up Group C posts of LDC pertaining to ICAR Hqrs. and its Institutes are in progress at ASRB in a centralized manner. The recruitment shall be finalized within this calendar year *i.e.* by 31.12.2016. The State-wise details of sanctioned strength, in position and vacancy details of Administrative posts are enclosed at Annexure-XII.

3.65 The Department have also informed that technical cadre posts are Institute based posts and recruitment against these posts were being made by the respective Institute. However, now it has been decided with the approval of the Governing body of ICAR that the vacant posts of Technician (T-1) in Category-I and Technical Assistant (T-3) in Category-II may be filled through a centralized examination by ASRB. Necessary advertisement in this regard has already been issued by the respective Institutes and the information regarding the vacancy position and number of applications received, as informed by the Institutes, have already been sent ASRB. It has been decided by the Competent Authority that the vacant posts of Senior Technical Officer (T-6) in Category-III, may also be filled up through a centralized examination by ASRB which is under process.

3.66 On the above issue, the representative of the Department during evidence stated as under:

"आप साइंटिस्ट इन पोजीशन के बारे में आप बात कर रहे थे। अभी हमारे 89.27 प्रतिशत इन पोजीशन हैं, करीब-करीब 90 प्रतिशत पोजीशन में हैं। 10 प्रतिशत का अभी प्रोसेस चल रहा है। 206 अभी रिक्रूट हुए हैं और 93 पोजीशंस के लिए एडवरटाइजमेंट हो चुका है तो सारा इस साल जो भी बाकी है, फिर उसको हम लोग कम्पलीट कर देंगे।"

3.67 On the query of the Committee regarding efforts being made by the DARE/ICAR for attracting talent for agricultural research institutes, the Department have stated that the ICAR *vide* its letter No. 1(1)/2009-Per. IV dated 6.3.2009 has notified the instructions regarding the revision of pay package and Career Advancement Scheme in light of the scheme of revision of pay of teachers in universities notified by the MoHRD *vide* Notification No. 1032/2006-U.II/U.I.(I) dated 31.12.2008 following revision of pay scales of Central Government employees on the recommendations of VI CPC; as accepted by the Government of India, para 4 lays down the guidelines for providing incentives to the Scientists for possessing higher qualification or acquiring higher qualifications *i.e.* the provision for the incentives are as under:—

- (a) Five non-compounded increments shall be given to the Scientists at the time of recruitment on 01.09.2008 as Scientist to the person possessing the degree of Ph.D. awarded in the relevant discipline by a university following the process of registration, course-work and external evaluation prescribed by the ICAR.
- (b) Candidates who hold M.Phil/M.Tech/M.Sc(Ag)/M.V.Sc/M.F.Sc degree (with 4 years bachelor and 2 years master's programme) at the time of recruitment on or after 01.09.2008 as Scientists shall be given two non-compounded advance increments.
- (c) A Scientist shall be given three non-compounded advance increment as and when he acquires Ph.D degree in his service career on or after 01.09.2008 from a University following the process of registration, course-work and external evaluation as prescribed by the ICAR.
- (d) A Scientist shall be given one non-compounded advance increments as and when he acquires M.Phil or a post graduate degree in the professional course as may be notified by the ICAR in his service career on or after 01.09.2008, provided such post graduate qualification is not a mandatory requirement at the entry level of recruitment.
- 3.68 The Department have further informed that as per the guidelines notified in the ICAR letter dated 06.03.2009, the Scientists holding Veterinary qualification (B.V.Sc/M.V.Sc) would be paid Non-practicing Allowance in light of the guidelines issued by the Government of India.

(10) AGROINNOVATE INDIA LTD.

3.69 AgroInnovate India Ltd. is DARE/ICAR owned PSU company working towards promotion and commercialization of ICAR technologies, and licensed the technology of tissue culture of oil palm and related knowhow for commercialization. The Department in their Annual report (2015-16) have stated that AgroInnovate India Limited (AgIn) coordinated various training and capacity building programmes. The National Bureau of Plant Genetic Resources (NBPGR) signed a Memorandum of Agreement (MoA) with a private company, facilitated by AgIn for licensing of five DNA-based GMO screening technologies. AgIn licensed designs of 31 agricultural engineering machineries from Indian Institute of Horticultural Research (IIHR), Bengaluru to a private company. AgIn also facilitated in organizing training programmes for West Africa

Agricultural Productivity Programme nominated Nigerian candidates in Fish Breeding Technology at Central Institute of Freshwater Aquaculture, Bhubneshwar; a 24-week certificate course on Food Science and Technology at Central Institute of Agricultural Engineering, Bhopal; a 6-month programme on Seed Technology at Directorate of Seed Research, Mau.

3.70 When asked to furnish details of revenue generation by the AgIn for last three years, the Department have stated that the details of revenue generation by the AgIn for last three years are as under:-

Financial year	2012-13	2013-14	2014-15
Revenue from Operations	NIL	1,26,34,405	48,99,770
Other Income (Interest Income)	4,20,29,587	4,86,03,630	5,09,36,269

3.71 On the query of the Committee about profit generated by the AgIn since its incorporation, the Department have furnished following details:

Financial year	2012-13	2013-14	2014-15
Profit before tax	4,08,00,860	4,72,35,416	4,28,44,829
Net Profit	2,94,16,569	3,19,09,667	2,89,21,501

3.72 On the query of the Committee regarding system of recruitment in AgIn, the Department have stated that HR policy and organizational structure of the Company is yet to be finalized. There are two permanent staff members (one Company Secretary and one Chief Executive Officer) who have been recruited through open advertisement followed by Interview by the Directors of the Company. Rest of the employees of the Company are engaged on contract.

3.73 When asked about utilization of services of AIL by ICAR Institutes for commercialization of technology, machinery, varieties of seeds/plants etc. developed by them, the Department have stated that AgroInnovate India Limited mandate is to transfer the products of Research and Development generated in Institutions under the Indian Council of Agricultural Research (ICAR) on commercial terms, and the Company endeavors to focus on translating potential technological outputs of ICAR into marketable products and commercial activities. As the Company is focusing of selected promising technologies therefore the services of AgIn is taken by few ICAR Institutes, however, if required

AgIn shall facilitate in any commercialization of technologies to national and international clients with the technical backstopping from ICAR institutes.

3.74 When asked about preparation of list of commercially viable technology, machinery, varieties of seeds/plants etc. developed by all institutes of ICAR, the Department have stated that Agln has prepared a list of commercially viable technology, machinery varieties of seeds/plants etc. developed by all Institutes of ICAR and is enclosed as Annexure-XIII.

PART II

OBSERVATIONS/RECOMMENDATIONS

1. The Committee note that the Action Taken Replies regarding the action taken by the Government on the Observations/ Recommendations contained in the Tenth Report of the Committee were furnished by the Government within the stipulated three months. The Committee further note that in pursuance of Direction of 73-A of the 'Directions by the Speaker, Lok Sabha', the Minister concerned is required to make a Statement on the status of implementation of Observations/Recommendations contained in the Original Reports of the Committee within six months of their presentation to the Parliament. The Committee note that the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education) adhered to the deadline fixed for making Statement of Minister of Agriculture under Direction 73-A of Directions by Speaker, Lok Sabha in the context of Tenth Report of the Committee which was presented to the Parliament on 27 April, 2015 and the Statement was made on 04 August, 2015. The analysis of action taken by the Government reveals that 78.26% recommendations were accepted by the Government, replies in respect of 8.68% recommendations were not accepted by the Committee and 4.34% were of interim nature. The Committee hope that the Department will continue to follow the tradition in future as well.

Overview of Demands

2. The Committee note that a sum of Rs. 3700.00 crore has been allocated under Plan Head to the Department for the financial year 2016-17. The Committee have also observed that the allocations to the Department under the Plan Head has been reduced by Rs. 691 crore *i.e.* 18.72% at RE stage during the financial year 2015-16. It was explained to the Committee that drastic cut in the allocation of the Department in RE 2015-16 was apparently due to the overall reduction effected by the Ministry of Finance, Government of India, in the plan allocation of DARE/ICAR in RE 2015-16. The Committee also note that the Department had failed to fully utilize allocated fund during 2014-15 when only Rs. 2268.57 crore were utilized out of RE allocations of Rs. 2500 crore under Plan Head. During financial year 2015-16, out of total allocations of

Rs. 3000 crore, only Rs. 1734.82 Crore could be spent till 31 December, 2015. The Committee are not convinced with the explanation of the Department that the major programmes/activities falling in the mandate of the each Subject Matter Division were not impacted by the cut due to sustained efforts made by all the constituent units falling under the purview of the various Subject Matter Divisions and some strategic planning by assigning priorities to the ongoing research programmes and allocation of adequate funds from the available budget of the department for this purpose in order to accomplish the research targets set for the year. The Committee note with a great sense of disappointment that the story of the yesteryears has been repeated by the Planners and the Government in the matter of allocations of funds to DARE during this year also. The Committee are of view that agriculture sector being a major avenue for employment generation, require significant support in terms of R & D so as to ensure cost effective and best quality seeds, insecticides, fertilizers and agricultural equipments are available to the farmers to bring down cost of cultivation significantly. The Committee, therefore, recommend that Ministry of Finance be impressed upon to allocate funds as per their requirement at RE stage so that R&D in agriculture sector do not suffer for want of funds.

Funds Allocation during Twelfth Plan

3. The Committee note that an outlay of only Rs. 17741 crore i.e. 69.42% allocations (BE) has been made during all five fiscal as against earmarked outlays for 12th plan Outlay of Rs. 25553.00 crore. It has been further observed that allocations (BE) has been drastically reduced at RE stage in first four financial years. Allocations to the Department in first four financial years (RE) is Rs. 10620 i.e. only 41.56% of 12th plan. Out of the allocated amount, the Department have been able to spend a sum of Rs. 8847.29 crore only upto December, 2015. The Committee have also been informed that allocations to other scientific Ministries/ Departments and related ones ranges in between 45.70 to 73.53 as percentage of XII-Plan earmarked outlay. The Committee have also been informed that due to reduced allocations during 12th plan period, they have to prioritize research and allocate funds accordingly. The Committee have also been informed that the ICAR could not develop additional facilities in many pioneer institutes such as IARI, Pusa which is required to maintain its reputation as world class Research institution in the area of agriculture. The Committee are concerned to note the apathy of the Government towards fund allocations to the

important area of agricultural research. The Committee are of view that significant investment is required in the area of R&D in general and in the field of agriculture in particular. Scientific intervention is absolutely essential for lowering the cost of agriculture and for doubling the income of the farmers within next five years. For this purpose scientific community should not face financial constraints while addressing the challenges being faced by the farming community in the country. The Committee, therefore, recommend that significant investment to the extent of 1% of agricultural GDP may be made in the field of agricultural research during next plan period.

Planning in the Era of NITI Aayog

4. The Committee note that the Government are yet to initiate process of formulation of next plan after replacement of Planning Commission by NITI Aayog. In this regard, the Committee have been informed that as per Allocation of Business Rules, the NITI Aayog is mandated to evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States in the light of national objectives. Niti Aayog is also assigned the responsibility to develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of Government. To design strategic and long term policy and programme frameworks and initiatives, and monitor their progress and their efficacy, the lesson learnt through monitoring and feedback will be used for making innovative improvements, including mid-course corrections. According to the Department, they have envisaged overall allocation of 1.0% of total agricultural GDP for the Department (DARE/ICAR) for attaining required growth of agriculture sector in the country. The Department will require fund of Rs. 45878.13 crore under Plan and Non-plan Heads for next five years. However, the Committee are astonished to know that Department is not aware about future course of planning process and NITI Aayog is yet to take any decision regarding formulation of next five year plan. The Committee are of view that formulation of long term plan is sina-quanon for development of economy in general and science and technology in particular. NITI Aayog need to take up this issue on urgent basis and specify the future course of action for planning so that necessary steps could be taken up to fix targets and assign resources accordingly. The Committee, therefore, recommend that the NITI Aayog be urged to design strategic and long term policy frameworks of the Department to enable them to take initiatives and formulate action plan accordingly to achieve

the physical and financial targets for the purpose. The Committee also expect the DARE/ICAR to utilize in-house mechanism and expertise for the development of long term vision and plan for all institutions under its purview for the next five years.

ICAR Publications in Regional Languages

5. The Committee note that ICAR through Directorate of Knowledge Management in Agriculture (DKMA) is entrusted with responsibility to showcase ICAR's Technologies Policy and other activities through modern dissemination methods that cater various stakeholders in the field of agriculture. The Department have informed that 11 magazines/journals/periodicals are being published by DKMA. Alternative system such as ICAR website, ICAR Facebook page and ICAR Youtube channel are also being used by them for undertaking information dissemination to farmers other than publication. Besides, two magazines namely 'Kheti' and 'Phal Phool' and 'Agbiotech digest' are being published in Hindi. However, the Committee observe that no magazine/periodical is being published in regional languages. The Committee are of considered view that ICAR publications and information about the works of ICAR Institutions regarding newly developed seeds, plant varieties, farming methods, integrated pest and nutrient management practices etc. should reach among farmers of the country and that too in their regional languages. Further, the DARE/ICAR are required to bring more publications and take steps to enhance its circulation so that more number of farmers could be benefited from these initiatives. The Committee, therefore, recommend the Department to take steps for availability of ICAR publications in all regional languages of the country to ensure dissemination of information about agriculture research among all farmers of the country.

Crop Science Division

6. The Committee note that Crop Science Division has released 81 improved varieties/hybrids of different crops during 2015. The Committee were also informed that the division has been able to produce a total of 978, 17562, 12847, 14000 and 3418 tonnes of breeder, foundation, certified, truthful labeled seeds and planting material respectively during 2015. However, the Committee note that allocations to the division has been reduced to Rs. 495 crore at RE stage from allocated Rs. 570 crore at BE stage. Accordingly, the Division has to allocate limited resources to critical areas needing focused attention for accomplishing the target. The Committee are

of view that the Crop science Division needs to be given enough resources to enable them to develop improved varieties of crops and planting materials required by the farmers of the country not only to improve productivity but also to reduce dependence on multinational companies for seeds. Better performance of the division is crucial for ensuring food security of the country and to augment the income of the farmers. The Committee, therefore, recommend that allocations to the Division may be enhanced suitably at RE stage to ensure them to fulfill expectations of the farmers and planners of the country.

Promotion to Cultivation of Pulses

7. The Committee are distressed to note that despite being the largest producer of pulses in the world, India has to resort to import a large quantity of pulses to meet the demand in the country. The Committee note that production of pulses in the country is around 17-19 million tonnes during the last 3-4 years which falls short of domestic requirement of about 22.5 million tonnes processed dal. 3.09 mt. of pulses were imported by the country bringing a burden of Rs. 11038 crore during 2013-14. ICAR has developed a number of area and season specific high yielding and pest resistant varieties of pulses which has positive impact of 14-16% in increasing production of pulses in the country. The ICAR has also developed crop production, management and protection technologies which can safeguard pulse crops from pests and insects. The Committee have also been informed that a scheme for enhancing indigenous pulse production to achieve self sufficiency by 2020-21 has been initiated besides existing National Food Security Mission and Borlaug Global Rust Initiative. However, the Committee are anguished to note that failure of State and National seed companies to provide quality seeds of improved varieties, slow pace of farm mechanization in pulses cultivation, failure of the Government to create efficient market intervention scheme, lack of liberal credit policy and poor economic capacity of the farmers to make investment are hindering country to achieve self sufficiency in production of pulses. The Committee are of view that pulses are a major source of protein for majority of people in India and availability of adequate quantity of pulses at reasonable prices is a way to deal with the problem of malnutrition in the country. The Committee, therefore, desire the Government should invest aggressively not only in R&D for pulses but should also provide adequate incentives to the farmers in the form of support to availability of improved varieties of seeds at subsidized rate, farm mechanization and credit facility at lower

interest rate. The Committee also desire that the Department should impress upon all stake holders including State Governments to expedite farm mechanization and use quality seeds of the improved varieties to achieve self sufficiency in pulse production in the country in the near future. Further, the Government should also provide adequate financial support for the purpose so that the time bound mission to achieve self-sufficiency in pulses production do not suffer for want of funds.

Natural Resource Management (NRM) Division

8. The Committee note that Natural Resource Management (NRM) Division is engaged in developing location specific, cost effective and eco-friendly technologies for conservation and management of natural resources through the network of 06 Central Research Institute, 03 research complexes, 03 project directorates, 01 bureau, 02 National Research Centres, 03 network projects and 10 All India Coordinated Research Projects in the country. However, the Committee note that allocations to the Division were reduced at RE stage which are not adequate to meet the responsibility assigned to them. The Committee note that allocations to the Division has been reduced from Rs. 370 crore at BE stage to Rs. 321 crore at RE stage for the year 2015-16. The Committee further observe that Division was allocated only Rs. 1061 crore (RE) till 2015-16 against earmarked outlays of Rs. 2183.5 crore during 12th plan. The Committee were informed that due to lack of funds, no new activities were undertaken during 2015. The Committee are of view that NRM Division has to perform crucial role to develop methods and technologies in the areas of soil quality assessment, micro level land use planning, integrated soil-water-nutrient management, watershed management, crop diversification etc. that are very crucial keeping in view of the decreasing land availability and deteriorating soil health and water crisis. Further, it has to devote resources for fundamental research in the field of impact of climate change on Indian agriculture. Therefore, it is absolutely essential that adequate financial support to the Division is provided so that agricultural scientists devote their time and energy without financial constraints to address problems of farmers associated with climate change. The Committee, therefore, recommend that allocations to the Division may be augmented as per their requirement to enable them to focus on agricultural research.

Enhancement of Research Centres and Technology Demonstration Centres under NICRA Project in Eastern India

9. The Committee note that Natural Resources Management Division has also been given responsibility for coordinating research under NICRA project. The project aims to enhance resilience of Indian agriculture to climate change and climate vulnerability through strategic research and technology demonstration. The project is being run through a network of 49 strategic research Centres, 6 sponsored grants component centres, 25 AICRPAM Centres, 23 AICRPDAA Centres and 129 Technology Demonstration Components. However, the Committee note that numbers of Technology Demonstration Centres and Strategic Research Stations are quite less in Eastern India especially in West Bengal where only 3 Technology Demonstration Centres and 01 Strategic Research Centre is working on the project. The Committee are of the view that there is need to enhance focus on climate research on agriculture in eastern parts of the country keeping in view the numbers of Agro-climatic zones and sub-zones in the areas. The Committee, therefore recommend the Department to increase the number of research stations and technology demonstration centres in Eastern India especially in West Bengal so that region specific problems associated with climate change could be studied properly and appropriate solutions could be arrived at.

Agricultural Engineering Division

10. The Committee note that Agricultural Engineering Division of ICAR is mandated to plan, coordinate and monitor R&D programmes and serve as an information repository in agricultural engineering to make Indian agriculture profitable, sustainable and globally competitive enterprise through engineering interventions. However, the Committee are constrained to note that the Division has been allocated only Rs. 254 crore (RE) during first four years i.e. only 23.10% against earmarked outlays of Rs. 1100 crore for 12th Plan. The Committee are of view that the mechanization of agricultural operation in the country needs to be expedited in order to reduce drudgery of farmers and reduce cost of agricultural operations for which the Division needs to focus on development of agricultural machineries and implements which can be used effectively in fragmented land holdings of small and marginal farmers of the country. The Committee, therefore recommend that allocations to the Division may be enhanced suitably at RE stage during the current year and in coming years so that the Division could fulfil the mandate entrusted upon without fund constraints. The Committee also recommend that a time bound R&D may be planned by the Department for development of region specific small and cost effective farm machineries. The Committee would like to be informed about the steps taken by the Department in this regard.

11. The Committee note that Agricultural Extension Division has been entrusted with the responsibility of implementing Plan Scheme on continuation and establishment of new Krishi Vigyan Kendras (KVKs). The KVK scheme concerns with technology assessment, refinement and demonstration of technology/products and its transfer through training of farmers and extension personnel, besides organizing extension programmes for creating awareness on improved agricultural technology. The scheme is being monitored through eight Zonal Project Directorates. ICAR has 643 KVKs in the country. Further, the Government has also approved to establish 109 more KVKs in newly created districts, one additional KVK in larger districts, border and mountainous districts during 12th Plan. However, the Committee note that out of approved additional 121 KVKs, only 12 KVKs have been established so far. The Committee also note that Agricultural Extension Division has been one of the recipient of lowest allocations during 12th plan. The Division has received only Rs. 2964.9 crore (BE) till 2016-17 against earmarked allocations of Rs. 5739.56 crore for 12th plan. The Committee are of the considered opinion that agricultural extension is most important link between lab. and farmers. The result of investment made on R&D and efforts of scientists could not be fructified unless information regarding seeds, planting materials, fertilizers, technologies, farming methods, contingency plan etc. reaches the farmers. The Committee, in their previous Reports, had time and again emphasized upon this important aspect and called for enhanced allocations for implementation of KVK scheme. However, the Committee are distressed to note that Government have failed to provide adequate funds required for the scheme over the last few years. The Committee are of the view that stated objective of doubling the income of farmers of the country in next five years could not be achieved unless agricultural extension support through KVKs are provided to them. The Committee, therefore, recommend that the allocations to the KVK scheme may be enhanced at RE stage to enable the Department to establish additional 121 KVKs as approved for 12th Plan. The Committee also, desire that each KVK should have an artificial insemination centre for animals with proper infrastructure and adequate Veterinary Doctors.

Agricultural Education Division

12. The Committee note that Agricultural Education Division is entrusted with the responsibility of maintaining and upgrading quality,

relevance and strengthening of higher agricultural education through a network of 73 Agricultural Universities. The Division is implementing a scheme on "Strengthening and Development of higher Agricultural Education in India" for up-gradation of academic environment by modernisation and strengthening of educational structures, laboratories, computer labs., ICT facilities/NISAGENET, smart classrooms, state-of-art equipment, support for effective course curriculum delivery, educational tours, text book/manual preparations and strengthening library facilities including e-resources. However, the Committee are constrained to note that the Division has not been provided with the funds as earmarked for them during 12th plan. The Division has been provided only Rs. 2371 crore during the Plan period till the current financial year against earmarked outlays of Rs. 4000 crore. As a result of lower allocation of funds, two sub-schemes namely 'Strengthening and Enhancing Research and Instructional capabilities of Universities' (an amount of Rs. 500 crores was allocated for this component) and 'Support for Old/Historical colleges' (an amount of Rs. 250 crore was allocated for this activity) could not be implemented. The Committee are of the firm view that investment in education especially in agricultural education fetch rich reward in terms of experienced human resources along with research output useful for the agriculture sector in the country. The Committee, therefore, recommend that the allocations to the Agricultural Education Division may be suitably enhanced at RE stage in ongoing financial year as well as in coming years so that important work of strengthening agricultural education does not get hampered due to paucity of funds.

Vacancy in ICAR Institutions

13. Availability of adequate scientific, technical and administrative staff in Institutes of ICAR is pre-requisite for better performance. However, the Committee are anguished to note that large number of these posts continue to remain vacant over long period. The Committee note that 893 posts of scientists, 1087 posts of administrative personnel and 1603 technical posts are vacant in institutes of ICAR. The Committee have been informed that an advertisement for 97 vacancies for ARS-2015 has already been issued. The Committee are of the view that ICAR is required to streamline the process for recruitment for all the posts in ICAR institutes including that of Scientists and the process should be completed before the vacancies arise so that R&D work do not suffer for lack of scientists, technical or administrative staff. The Committee have expressed this view in several of their earlier reports including 10th Report on examination of Demands for Grants (2015-16). However, the ICAR is yet to take the recommendation of

the Committee in right spirit and take the required steps. The Committee, therefore, recommend that the existing policy for recruitment at all post in ICAR institutions including for the post of scientists may be reviewed and streamlined in order to complete the process of recruitment in a time bound manner. The Committee would like to be informed of the action taken in this regard.

AgrInnovate India Limited (AgIn)

14. The Committee note that AgrInnovate India Limited (AgIn) is DARE/ICAR owned PSU company working towards promotion and commercialization of ICAR technologies. AgIn has generated revenue of Rs. 48,99,770 during 2014-15 as compared to Rs. 1,26,34,405 during 2013-14. Similarly net profit of the Company which mostly include interest of the deposit were Rs. 2,94,16,569, Rs. 3,19,09,667 and Rs. 2,89,21,501 during 2012-13, 2013-14 and 2014-15, respectively. The Committee also note that HR policy and organizational structure of the Company is yet to be finalized. There are two permanent staff members (one Company Secretary and one Chief Executive Officer) recruited through open advertisement followed by Interview by the Directors of the Company and the rest of the employees of the Company are 80 engaged on contract basis. The Committee also note that Company is focusing on selected promising technologies, therefore, the services of Agln is taken by few ICAR Institutes. However, if required, AgIn could facilitate commercialization of technologies to national and international clients with the technical backstopping from ICAR institutes. The Committee are of the view that there is tremendous scope for commercialisation of products and technologies of ICAR institutes in domestic and international market and AgIn could be modelled on the line of Amul or NDDB pattern for harnessing potential in agriculture sector. The Committee, therefore, recommend that HR policy and organizational structure of Agln may be finalized without further delay and best possible talent in agricultural marketing may be recruited for the purpose. The Committee would also like to be apprised of the initiatives undertaken by the Department in this regard.

New Delhi; 28 April, 2016 08 Vaisakha, 1938 (Saka) HUKM DEO NARAYAN YADAV, Chairperson, Standing Committee on Agriculture.

ANNEXURE I

NUMBER OF INSTITUTES THAT HAS PUT UP DEMANDS FOR ENHANCED FUNDS AT RE STAGE

(Rs. in lakhs)

			(1/3	. III (akiis)
Sl.No.	Name of the Sector/Scheme	2014-15 BE	Proposed RE 2014-15	2014-15 RE
1	2	3	4	5
CROP	SCIENCE			
1.	National Bureau of Plant Genetic Resources, New Delhi	1614.00	4569.00	1147.00
2.	Indian Agriculture Research Institute, New Delhi	6151.00	6436.00	3191.28
3.	National Research Centre for Integrated Pest Management (NCIPM), New Delhi	1629.00	1695.00	1519.00
4.	National Rice Research Institute, Cuttack	3605.00	3663.00	3533.99
5.	Indian Institute of Pulses Research, Kanpur	4125.00	4587.00	3525.00
6.	Indian Institute for Wheat and Barley Research, Karnal	4135.00	4335.00	3773.36
7.	Indian Institute of Sugarcane Research, Lucknow	2744.00	2864.00	2264.00
8.	Central Institute of Cotton Research, Nagpur	2800.00	4216.00	2545.00
9.	National Bureau of Agricultural Insect Resources, Bengaluru	1722.00	2256.00	1654.37
10.	Directorate of Seed Research, Mau	3639.00	5933.00	4113.67
11.	National Institute of Biotic Stress Management, Raipur	700.00	850.00	350.00
12.	Indian Institute of Agricultural Biotechnology, Ranchi	800.00	1000.00	294.33
HORT	ICULTURE SCIENCE			
13.	Indian Institute of Horticulture Research, Bengaluru	4179.00	4635.00	2757.00

1	2	3	4	5
14.	Central Institute of Sub-Tropical Horticulture, Lucknow	2186.00	2212.50	1145.00
15.	Central Plantation Crops Research Institute, Kasargod	2118.00	2213.00	1363.00
16.	Indian Institute of Spices Research, Calicut	1755.00	3174.00	1597.00
NATU	RAL RESOURCE MANAGEMENT			
17.	National Bureau of Soil Survey and Land Use Planning, Nagpur	500.00	831.39	335.00
18.	Indian Institute of Soil and Water Conservation, Dehradun	465.00	1528.50	365.00
19.	Indian Institute of Soil Science, Bhopal	2535.00	3683.78	2045.00
20.	Central Soil Salinity Research Institute, Karnal	875.00	1428.00	710.00
21.	ICAR Research Complex for Eastern Region, Patna including Makhana	525.00	1272.00	315.00
22.	Indian Institute of Water Management, Bhubaneshwar	2350.00	4110.00	2171.00
23.	Central Research Institute of Dryland Agriculture, Hyderabad	3620.00	5290.12	2600.00
24.	Indian Institute of Farming System Research, Modipuram	5910.00	6138.00	4749.00
25.	National Institute of Abiotic Stress	2460.00	4390.00	1827.00
	Management, Baramati, Maharashtra			
26.	National Innovation in Climate Resilient Agriculture, Hyderabad (under CRIDA Hyderabad)	10000.00	18000.00	6500.00
AGRIO	CULTURAL ENGINEERING			
27.	Central Institute of Agricultural Engineering, Bhopal	3460.00	3752.69	2953.96
28.	Central Institute on Post-harvest Engineering and Technology, Ludhiana	2980.00	3036.00	2510.35
29.	National Institute of Research on Jute & Allied Fibre Technology, Kolkata	392.25	423.05	269.72

1	2	3	4	5
ANIMA	AL SCIENCE			
30.	National Bureau of Animal Genetic Resources, Karnal	520.00	670.00	450.00
31.	Central Sheep and Wool Research Institute, Avikanagar, Rajasthan	1050.00	1290.22	942.82
32.	Central Institute for Research on Goats	950.00	1037.00	664.20
33.	Central Institute for Research on Buffaloes, Hissar	800.00	1470.58	677.00
34.	NRC on Camel, Bikaner	300.00	364.70	222.62
35.	NRC on Equine, Hissar	1000.00	1050.00	640.00
36.	Directorate of Foot & Mouth Disease, Mukteshwar	3000.00	4090.00	2354.35
37.	Central Avian Research Institute, Izatnagar	2425.00	2726.31	1472.63
38.	Indian Veterinary Research Institute, Izatnagar	4420.00	9668.98	3485.00
39.	NRC on Meat, Hyderabad	185.00	408.00	128.50
40.	NRC on Pig	2350.00	3395.00	1668.00
FISHE	RY SCIENCE			
41.	Central Marine Fisheries Research Institute	2880.00	3145.00	1930.00
42.	Central Institute of Fisheries Technology, Kochi	1055.00	1200.00	715.00
43.	Central Institute of Freshwater Aquaculture, Bhubaneshwar	1090.00	1140.00	695.00
44.	National Bureau of Fish Genetic Resources, Lucknow	940.00	1220.00	630.00
AGRIC	CULTURAL EXTENSION			
45.	Krishi Vigyan Kendras (including ERNET, Farmer's First, Disaster Management)	58650.00	78608.30	53360.77
AGRIC	CULTURAL EDUCATION			
46.	Central Institute for Women in Agriculture, Bhubaneshwar	1120.00	1377.00	1075.00
	Total (Ongoing Schemes)	371500.00	416517.06	250000.00

(Rs. in lakhs)

			(· 111 (alti13)
Sl.No.	Name of the Sector/Scheme	2015-16 BE	Proposed RE 2015-16	2015-16 RE
1	2	3	4	5
CROP	SCIENCE			
1.	National Bureau of Plant Genetic Resources, New Delhi	3512.00	3750.00	2076.00
2.	Indian Agriculture Research Institute, New Delhi	4760.00	11730.34	5090.00
3.	National Research Centre for Integrated Pest Management, New Delhi	2326.00	3459.77	1557.00
4.	National Rice Research Institute, Cuttack	4114.00	5385.00	4262.00
5.	Indian Institute of Pulses Research, Kanpur	4722.00	5015.00	4676.00
6.	Indian Institute for Wheat and Barley Research, Karnal	5114.00	6517.00	4871.00
7.	Indian Institute of Millets Research, Hyderabad	2754.00	2868.61	2660.00
8.	Indian Institute of Sugarcane Research, Lucknow	2505.00	3020.53	2286.00
9.	Central Institute of Cotton Research, Nagpur	3137.00	3671.00	3005.00
10.	Indian Institute of Oilseeds Research, Hyderabad	6518.00	6793.00	6499.00
11.	National Bureau of Agricultural Insect Resources, Bengaluru	1926.00	2433.39	1858.00
12.	Directorate of Seed Research, Mau	3722.00	5551.92	3637.00
13.	National Bureau of Agril. Important Microorganisms, Mau	910.00	1035.00	700.00
14.	National Institute of Biotic Stress Management, Raipur	920.00	1120	245.00
HORT	ICULTURE SCIENCE			
15.	Indian Institute of Horticulture Research, Bengaluru	4565.00	6185.00	3931.50

1	2	3	4	5
16.	Central Institute of Sub-Tropical Horticulture, Lucknow	2100.00	2347.00	1360.00
17.	Central Institute of Arid Horticulture, Bikaner	1850.00	2295.00	1699.00
18.	Indian Institute of Vegetable Research, Varanasi	3190.00	4026.00	2977.69
19.	Central Plantation Crops Research Institute, Kasargod	2400.00	2836.00	1932.00
20.	Indian Institute of Spices Research, Calicut	1925.00	2053.00	1303.50
21.	Directorate of Floricultural Research, Pune	2120.00	2468.00	1720.81
NATU	RAL RESOURCE MANAGEMENT			
22.	Indian Institute of Soil and Water Conservation, Dehradun	525.00	733	470.00
23.	Indian Institute of Soil Science, Bhopal	2970.00	3493.24	2839.60
24.	Central Soil Salinity Research Institute, Karnal	950.00	1299.67	890.00
25.	Central Research Institute of Dryland Agriculture, Hyderabad	3942.90	9390.90	3880.90
26.	Indian Institute of Farming System Research, Modipuram	6090.48	7900.15	5423.88
27.	National Institute of Abiotic Stress Management, Baramati, Maharashtra	2400.00	3027.45	2100.00
28.	National Innovation in Climate Resilient Agriculture, Hyderabad (under CRIDA Hyderabad)	11000.00	16000	9500.00
AGRIO	CULTURAL ENGINEERING			
29.	Central Institute of Agricultural Engineering, Bhopal	3931.00	4391.00	3730.00
30.	Central Institute on Post harvest Engineering and Technology, Ludhiana	3773.00	3818.27	3120.00

1	2	3	4	5
31.	Indian Institute of Natural Resins and Gums, Ranchi	521.00	1182.28	580.00
32.	Central Institute of Research on Cotton Technology, Mumbai	481.00	875.00	450.00
33.	National Institute of Research on Jute & Allied Fibre Technology, Kolkata	294.00	361.5	320.00
ANIMA	AL SCIENCE			
34.	National Bureau of Animal Genetic Resources, Karnal	500.00	535.00	495.00
35.	National Dairy Research Institute, Karnal	1010.00	1210	1110.00
36.	Central Sheep and Wool Research Institute, Avikanagar, Rajasthan	920.00	1251.25	1166.00
37.	Central Institute for Research on Goats	850.00	945.00	817.00
38.	Central Institute for Research on Buffaloes, Hissar	1050.00	1130.00	903.00
39.	Directorate of Foot & Mouth Disease, Mukteshwar	1350.00	16534.86	1220.00
40.	Central Avian Research Institute, Izatnagar	2530.00	3090.00	2699.00
41.	Indian Veterinary Research Institute, Izatnagar	6390.00	10290.56	7528.00
42.	NRC on Meat, Hyderabad	200.00	364	375.00
43.	NRC on Pig.	3300.00	3623.50	3015.00
FISHE	RY SCIENCE			
44.	Central Marine Fisheries Research Institute	3400.00	4961.22	2873.00
45.	Central Inland Fisheries Research Institute	1495.00	1530.00	974.00
46.	Central Institute of Fisheries Technology, Kochi	895.00	1100	898.00

1	2	3	4	5
47.	Central Institute on Fisheries Education, Mumbai	1570.00	1627	1018.00
48.	Central Institute of Freshwater Aquaculture, Bhubaneshwar	870.00	1586.5	607.00
49.	National Bureau of Fish Genetic Resources, Lucknow	1770.00	2980.00	1430.00
ECON	OMICS, STATISTICS & MANAGEMENT (ESM)			
50.	Indian Agricultural Statistical Research Institute, New Delhi+CABIN	1500.00	2106	1000.00
AGRIC	CULTURAL EXTENSION			
51.	Krishi Vigyan Kendras (including ERNET, Farmer's First, Disaster Management)	64485.00	80249.96	65650.00
AGRIC	CULTURAL EDUCATION			
52.	Central Institute for Women in Agriculture, Bhubaneshwar	2000.00	2200.00	2100.00
53.	Central Agricultural Universities Rani Lakshmi Bai CAU, Jhansi	1000.00	12440.00	1000.00
	GRAND TOTAL (Ongoing+New+ Budget Announcement)	369100.00	446501.27	300000.00

No. F. 2 (2)-B (CDN)/2015 Government of India Ministry of Finance Department of Economic Affairs (Budget Division)

New Delhi, the 31st March, 2015

Audit Order

Subject: Surrender of savings for the year 2014-15 in respect of Demand No. 2—Department of Agricultural Research & Education—reg.

The President is pleased to accept the surrender of savings of Rs. 1271,63,00,000 (Rs. One thousand two hundred seventy one crore sixty three lakh only) for the year 2014-15 in respect of Grant No. 2—Department of Agricultural Research & Education, as proposed by the Department *vide* their O.M. No. F. 1(22)/2014-Budget dated 18th March, 2015 and 31st March, 2015 (copy enclosed). The break-up of surrender is as given below:

(Rs. in thousands)

Surrender from	Plan	Non-Plan	Total
Revenue Section (Voted)	12262300	454000	12716300
Capital Section (Voted)	0	0	0
Grand Total	12262300	454000	12716300

Sd/-

(Amrish Kumar)

Under Secretary to the Government of India

Chief Controller of Accounts, Ministry of Agriculture, 241-C, Krishi Bhawan, New Delhi-110 001

Copy to:-

- 1. Controller General of Accounts, Department of Expenditure, 7th Floor, Lok Nayak Bhavan, New Delhi-110 003.
- 2. Shri R.C. Yadav, Under Secretary, Department of Agricultural Research & Education, Krishi Bhavan, New Delhi.

Sd/-(Amrish Kumar) Under Secretary to the Government of India

FIN No. F. 1(22)/2014-Budget Government of India Ministry of Agriculture Department of Agricultural Research and Education

Krishi Bhawan, New Delhi, Dated the 18th March, 2015

OFFICE MEMORANDUM

Subject: Surrender of Savings in Grants for the year 2014-15 in r/o Demand No. 2-DARE reg.

The undersigned is directed to refer to Ministry of Finance, Department of Economic Affairs, (Budget Division)'s OM No. 2(8)-B(D)/ 2015 dated 12.02.2015 on the above mentioned subject and to say that the Department of Agricultural Research and Education (DARE) hereby surrender an amount of Rs. 1215.04 crore under Plan and Rs. 45.40 crore under Non-Plan, as savings under the following object heads of Demand No. 2-DARE:

(In thousands of Rupees)

		•	
Code No.	Particulars	BE 2014-15	Saving Amount
1	2	3	4
	PLAN		
2415	Agricultural Research and Education (Major Head)		

- 01 Crop Husbandry (Sub-Major Head) 150 Assistance to I.C.A.R. (Minor Head)
- 01 Crop Science Institutes, Research & Education Schemes

010031	Grants-in-Aid-General	1,50,86,00	25,10,00
010035	Grants for creation of Capital Assets	72,74,00	29,27,00
010036	Grants-in-Aid-Salaries	2,19,40,00	29,28,00

1	2	3	4
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid-General	77,19,98	8,47,99
020035	Grants for creation of Capital Assets	67,53,85	40,56,00
020036	Grants-in-Aid—Salaries	47,26,17	9,11,01
03	I.C.A.R. Headquarter Administration including ASRB, DIPA, IPR Management and Consortia Research Platforms		
030031	Grants-in-Aid-General	1,63,19,00	64,92,50
030035	Grants for creation of Capital Assets	2,30,41,00	1,67,11,00
030036	Grants-in-Aid—Salaries	6,40,00	4,96,50
06	Agricultural Extension Institutes, Research & Education Schemes		
060031	Grants-in-Aid-General	69,27,00	31,58,32
060035	Grants for creation of Capital Assets	19,57,00	17,69,68
060036	Grants-in-Aid—Salaries	4,03,16,00	8,72,00
07	Agricultural Education Institutes, Research & Education Schemes		
070031	Grants-in-Aid—General	2,72,00,00	91,63,00
070035	Grants for creation of Capital Assets	2,23,00,00	43,37,00
08	Agricultural Economics & Statistics Institutes, Research & Education Schemes		
080031	Grants-in-Aid—General	15,87,70	3,46,70
080035	Grants for creation of Capital Assets	9,33,50	6,24,50
080036	Grants-in-Aid—Salaries	4,78,80	4,78,80
09	Agricultural Engineering Institutes, Research & Education Schemes		
090031	Grants-in-Aid—General	20,03,50	3,65,87
090035	Grants for creation of Capital Assets	19,80,50	12,94,53
090036	Grants-in-Aid—Salaries	39,16,00	39,60

1	2	3	4
10	National Agricultural Innovation Project/ Externally Aided Projects/Schemes		
100035	Grants for creation of Capital Assets	80,46,00	14,25,00
100036	Grants-in-Aid—Salaries	75,00	10,00
14	National Fund for Basic, Strategic and Frontier Application Research Agriculture		
140035	Grants for creation of Capital Assets	90,00,00	61,83,00
140036	Grants-in-Aid—Salaries	1,00,00	27,00
17	Agriculture University, Andhra Pradesh		
030031	Grants-in-Aid—General	19,28,00	7,20,00
030035	Grants for creation of Capital Assets	77,12,00	74,10,00
18	Horticulture University, Telengana		
030031	Grants-in-Aid—General	19,28,00	7,20,00
030035	Grants for creation of Capital Assets	77,12,00	74,10,00
2415	Agricultural Research and Education (Major Head)		
02	Soil & Water Conservation (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
02	Other Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		
020031	Grants-in-Aid—General	42,60,00	12,81,80
020035	Grants for creation of Capital Assets	36,70,00	13,65,00
020036	Grants-in-Aid—Salaries	95,70,00	7,03,20
03	Climate Resilient Agriculture Initiative		
030031	Grants-in-Aid—General	70,00,00	17,50,00
030035	Grants for creation of Capital Assets	25,00,00	15,00,00
04	National Adaptation Fund		
040031	Grants-in-Aid—General	51,84,00	51,65,00
040035	Grants for creation of Capital Assets	34,56,00	34,56,00

1	2	3	4
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid—General	91,84,42	16,09,22
010035	Grants for creation of Capital Assets	98,82,83	36,96,83
010036	Grants-in-Aid—Salaries	14,32,75	6,43,95
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	50,74,00	5,91,93
010035	Grants for creation of Capital Assets	39,26,00	21,58,07
2415	Agricultural Research and Education (Major Head)		
80	General		
120	Assistance to Other Institutions		
02	Grants-in-Aid to Central Agricultural University, Bundelkhand		
020031	Grants-in-Aid—General	1,00,00	50,00
020035	Grants for creation of Capital Assets	8,00,00	7,00,00
020036	Grants-in-Aid—Salaries	1,00,00	50,00
03	Grants-in-Aid to Central Agricultural University, Bihar		
030031	Grants-in-Aid—General	1,00,00	99,66
030035	Grants for creation of Capital Assets	2,00,00	1,99,67

1	2	3	4
030036	Grants-in-Aid—Salaries	7,00,00	6,99,67
	TOTAL — PLAN (Other than NEH & TSP) (A)	10	0,99,55,00
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	12,94,00	3,04,00
010035	Grants for creation of Capital Assets	2,06,00	1,96,00
03	Agricultural Extension Institutes, Research & Education Schemes		
030031	Grants-in-Aid—General	18,87,82	3,16,18
030035	Grants for creation of Capital Assets	11,12,18	1,83,82
04	Horticulture Institutes, Research & Education Schemes		
040031	Grants-in-Aid—General	6,00,78	1,55,78
040035	Grants for creation of Capital Assets	1,99,22	94,22
05	Agricultural Education Institutes, Res. & Education Schemes		
050031	Grants-in-Aid—General	21,00,00	3,50,00
050035	Grants for creation of Capital Assets	9,00,00	1,50,00
06	Agricultural Engineering Institutes, Res. & Education Schemes		
050031	Grants-in-Aid—General	77,00	46,70
050035	Grants for creation of Capital Assets	2,23,00	2,03,30
07	Agriculture University, Andhra Pradesh		
010031	Grants-in-Aid—General	72,00	72,00
010035	Grants for creation of Capital Assets	2,88,00	2,88,00
08	Horticulture University, Telangana		
010031	Grants-in-Aid—General	72,00	72,00
010035	Grants for creation of Capital Assets	2,88,00	2,88,00

1	2	3	4
2415	Agricultural Research and Education (Major Head)		
02	Soil & Water Conservation (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Other Natural Resource Management Institutes, Research & Education Schemes including Agro- forestry, Research and Education Schemes		
010031	Grants-in-Aid—General	22,02,00	8,31,00
010035	Grants for creation of Capital Assets	2,98,00	69,00
02	National Adaptation Fund		
020031	Grants-in-Aid—General	2,16,00	2,16,00
020035	Grants for creation of Capital Assets	1,44,00	1,44,00
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid—General	8,40,00	1,49,51
010035	Grants for creation of Capital Assets	1,60,00	1,50,49
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	1,15,00	62,00
010035	Grants for creation of Capital Assets	85,00	38,00
	TOTAL — PLAN (TSP) (B)		43,80,00

1	2	3	4
2552	North Eastern Areas (Major-Head)		
254	Crop Husbandry – Assistance to ICAR		
01	Crop Science Institutes, Research & Education Schemes		
010036	Grants in Aid—Salaries	12,00,00	1,25,00
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid—General	3,54,30	58,86
020035	Grants for creation of Capital Assets	3,80,00	2,63,14
020036	Grants-in-Aid—Salaries	2,65,70	1,78,00
03	Agricultural Extension Institutes, Research & Education Schemes		
030036	Grants-in-Aid—Salaries	71,34,00	2,00,00
04	Agricultural Education Institutes, Research & Education Schemes		
040031	Grants-in-Aid—General	9,00,00	2,98,00
040035	Grants for creation of Capital Assets	11,00,00	5,92,00
06	Agril. Engineering Instts., Research and Education Schemes		
060031	Grants-in-Aid—General	63,00	26,57
060035	Grants for creation of Capital Assets	1,03,00	23,43
255	Soil & Water Conservation — Assistance to ICAR		
01	Other Natural Resource Management Institutes, Research & Education Schemes including Agro- forestry, Research and Education Schemes		
010031	Grants-in-Aid—General	10,83,00	1,77,00
010035	Grants for creation of Capital Assets	13,17,00	10,17,00
010036	Grants-in-Aid—Salaries	1,00,00	56,00
02	Climate Resilient Agriculture Initiative		
020031	Grants-in-Aid—General	4,00,00	1,50,00
020035	Grants for creation of Capital Assets	1,00,00	1,00,00

1	2	3	4
03	NAF		
030031	Grants-in-Aid—General	6,00,00	6,00,00
030035	Grants for creation of Capital Assets	4,00,00	4,00,00
256	Animal Husbandry — Assistance to ICAR		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid—General	7,15,50	2,68,78
010035	Grants for creation of Capital Assets	6,69,50	4,21,22
010036	Grants-in-Aid—Salaries	1,15,00	60,00
257	Fisheries – Assistance to ICAR		
01	Fisheries Institutes Research & Education Scheme	es	
010031	Grants-in-Aid—General	1,69,00	59,80
010035	Grants for creation of Capital Assets	1,31,00	90,20
259	General (Agricultural Research & Education Schemes)		
01	Grants-in-Aid—General to Central Agricultural University, Imphal		
010035	Grants for creation of Capital Assets	79,30,00	12,91,54
010036	Grants-in-Aid—Salaries	73,51,00	6,81,46
02	Grants-in-Aid—General to Central Agricultural University, Barapani		
020036	Grants-in-Aid—Salaries	60,00	27,00
	TOTAL — PLAN (NEH) (C)		71,65,00
	GRAND TOTAL (PLAN) (A+B+C)	1	2,15,00,00
	NON-PLAN		
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Crop Science Institutes, Research & Education Schemes		

1	2	3	4
010031	Grants-in-Aid—General	2,69,18,00	14,70,62
010035	Grants for creation of Capital Assets	2,74,00	1,39
010036	Grants-in-Aid—Salaries	4,65,12,00	2,00,91
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid—General	82,51,00	51,28
020036	Grants-in-Aid—Salaries	2,07,23,00	2,96,72
03	I.C.A.R. Headquarter Administration including ASRB, DIPA, IPR Management and Consortia Research Platforms		
030031	Grants-in-Aid—General	64,04,00	5,48,84
030035	Grants for creation of Capital Assets	1,18,00	19,22
030036	Grants-in-Aid—Salaries	65,08,00	1,51,20
05	Payment of Net Proceeds of Cess Under Agricultural Produce Cess Act, 1940		
060031	Grants-in-Aid—General	50,00	25,00
06	Agricultural Extension Institutes, Research & Education Schemes		
060036	Grants-in-Aid—Salaries	3,00,00	50,00
07	Agricultural Education Institutes, Research & Education Schemes		
070031	Grants-in-Aid—General	41,21,00	4,99,05
08	Agricultural Economics & Statistics Institutes, Research & Education Schemes		
080031	Grants-in-Aid—General	10,59,00	1,40,65
080036	Grants-in-Aid—Salaries	26,61,00	84,35
09	Agricultural Engineering Institutes, Research & Education Schemes		
090036	Grants-in-Aid—Salaries	65,23,00	87,95
2415	Agricultural Research and Education (Major Head)		

1	2	3	4
02	Soil & Water Conservation (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
02	Other Natural Resource Management Institutes, Research & Education Schemes including Agro- forestry, Research and Education Schemes		
020031	Grants-in-Aid—General	99,17,00	92,00
020035	Grants for creation of Capital Assets	1,27,00	15,00
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes	1	
010031	Grants-in-Aid—General	1,89,68,00	3,52,08
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	103,47,00	3,68,00
	TOTAL-NON-PLAN — Major Head 2415 (D)		44,54,26
3451	Agricultural Research and Education (Major Head)		
00	Default		
090	Secretariat		
090001	Salaries	4,00,00	25,00
090003	OTA	1,00	0,50
090006	Medical Treatment	4,50	0,50
090012	FTE	65,00	36,74
090013	Office Expenses	22,00	7,00
090020	OAE	55,00	15,00
	TOTAL-NON-PLAN — Major Head 3451 (E)		84,74
	GRAND TOTAL - NON-PLAN (D+E)		45,39,00

In addition to the above, the savings to be surrendered under Plan and Non-Plan pertaining to the Token Supplementary demand approved in the First and Second Batch of Supplementary demand for Grants 2014-15 are as under:

(In thousands of Rupees)

	(Jasarias oi	(tapees)
Code No.	Particulars	Token Amount	Saving Amount
1	2	3	4
	PLAN		
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	50	50
010035	Grants for creation of Capital Assets	50	50
14	National Fund for Basic, Strategic and Frontier Application Research in Agriculture		
140035	Grants for creation of Capital Assets	50	50
140036	Grants-in-Aid—Salaries	50	50
	Total Plan Major Head 2415	2,00	2,00
2552	North Eastern Areas (Major-Head)		
254	Crop Husbandry — Assistance to ICAR		
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid—General	50	50
010035	Grants for creation of Capital Assets	50	50
06	Agricultural Engineering Institute, Research and Education Schemes		
060031	Grants-in-Aid—General	50	50
060035	Grants for creation of Capital Assets	50	50
	Total Plan Major Head 2552	2,00	2,00

1	2	3	4
	NON-PLAN		
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
06	Agricultural Extension Institutes, Research & Education Schemes		
060036	Grants-in-Aid—Salaries	50	50
09	Agricultural Education Institutes, Research & Education Schemes		
090036	Grants-in-Aid—Salaries	50	50
	Total Non—Plan Major Head 2415	1,00	1,00

Sd/(R.C. Yadav)
Under Secretary to the Government of India

To,

Ministry of Finance, Department of Economic Affairs, CDN Section Shri Amrish Kumar, Under Secretary, Room No. 221-A, North Block, New Delhi.

Copy to: PAO, PAO (Sect. II), Compilation Section, Ministry of Agriculture, 16-A, Akbar Road Hutment, New Delhi-110011

Sd/(R.C. Yadav)
Under Secretary to the Government of India

FIN No. F. 1(22)/2014-Budget Govt. of India Ministry of Agriculture Department of Agricultural Research and Education

Krishi Bhawan, New Delhi, Dated the 31st March, 2015

OFFICE MEMORANDUM

Subject: Surrender of Savings in Grants for the year 2014-15 in r/o Demand No. 2—DARE reg.

In continuation to this department's letter of even No. dated 18.03.2015, the undersigned is directed to refer to Ministry of Finance, Department of Economic Affairs, (Budget Division)'s OM No. 2(8)-B(D)/2015 dated 12.02.2015 on the above mentioned subject and to say that the Department of Agricultural Research and Education (DARE) further surrender an amount of Rs. 11,19,00 thousands under Plan, as savings under the following object heads of Demand No. 2—DARE:

(In thousands of Rupees)

Code No.	Particulars	RE 2014-15	Saving Amount
1	2	3	4
	PLAN		
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
19	Agriculture University, Rajasthan		
190031	Grants-in-Aid-General	400,00	400,0
190035	Grants for creation of Capital Assets	100,00	100,00
20	Horticulture University, Haryana		
200031	Grants-in-Aid-General	400,00	400,0

1	2	3	4
200035	Grants for creation of Capital Assets	100,00	100,00
255	Soil & Water Conservation - Assistance to ICAR		
03	NAF		
030031	Grants-in-Aid-General	19,00	19,00
	Total (A)		10,19,00
Code No.	Particulars	BE 2014-15	Saving Amount
	PLAN		
2415	Agricultural Research and Education		

- 2415 Agricultural Research and Education (Major Head)
 - 80 General
- 120 Assistance to Other Institutions
- 02 Grants-in-Aid to Central Agricultural University, Bundelkhand

020035 Grants for creation of Capital Assets 8,00,00 1,00,00

Total (B) 1,00,00

Grand Total 11,19,00

Sd/-

(R.C. Yadav)

Under Secretary to the Government of India

To,

Ministry of Finance, Department of Economic Affairs, CDN Section **Shri Amrish Kumar, Under Secretary,** Room No. 221-A, North Block, New Delhi.

Copy to: Pay & Accounts Officer (A/cs), PAO (Sect. II), Ministry of Agriculture, Compilation Section, 16-A, Akbar Road Hutment, New Delhi-110011.

Sd/-

(R.C. Yadav)

Under Secretary to the Government of India

Government of India Ministry of Agriculture and Farmers Welfare Department of Agricultural Research and Education

Krishi Bhawan, New Delhi, Dated the 31st March, 2016

OFFICE MEMORANDUM

Subject: Surrender of Savings in Grants for the year 2015-16 in r/o Demand No. 2 — DARE reg.

The undersigned is directed to refer to Ministry of Finance, Department of Economic Affairs, (Budget Division)'s OM No. 2(5)-B(D)/2016 dated 12/02/2016 on the above mentioned subject and to say that the Department of Agricultural Research and Education (DARE) had surrendered an amount of Rs. 734.01 crore under Revenue—Voted Section of the Grant provided to DARE (Demand No. 2—DARE) *vide* this Deptt.'s letter of even number dated 21.03.2016. However, some more savings have been identified under Demand No. 2-DARE.

The final savings under Demand No. 2—DARE (including the savings already communicated to Ministry of Finance *vide* this Deptt.'s letter of even number dated 21.03.2016) are as under:

TABLE 1
PLAN

(In thousands of Rupees)

Code No.	Particulars	BE 2015-16	Amount
1	2	3	4
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		

1	2	3	4
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	2,05,90,00	15,73,00
010035	Grants for creation of Capital Assets	1,25,40,00	41,92,05
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid-General	82,30,00	6,44,78
020035	Grants for creation of Capital Assets	72,30,00	10,63,14
03	I.C.A.R. Headquarter Administration including ASRB, DIPA, IPR Management and Consortia Research Platforms		
030031	Grants-in-Aid-General	1,22,50,00	23,45,00
030035	Grants for creation of Capital Assets	1,85,00,00	1,34,05,00
030036	Grants-in-Aid-Salaries	50,00	4,68
07	Agricultural Education Institutes, Research & Education Schemes		
070031	Grants-in-Aid-General	1,47,20,00	13,68,00
070035	Grants for creation of Capital Assets	3,67,30,00	1,37,65,00
08	Agricultural Economics & Statistics Institutes, Research & Education Schemes		
080031	Grants-in-Aid-General	16,85,00	4,33,00
080035	Grants for creation of Capital Assets	3,15,00	1,67,00
09	Agricultural Engineering Institutes, Research & Education Schemes		
090031	Grants-in-Aid-General	27,79,00	3,07,35
14	National Fund for Basic, Strategic and Frontier Application Research in Agriculture		
140031	Grants-in-Aid-General	37,68,00	3,43,00
140035	Grants for creation of Capital Assets	90,98,00	80,48,00
19	Agriculture University, Rajasthan		
190031	Grants-in-Aid-General	1,00,00	1,00,00

1	2	3	4
190035	Grants for creation of Capital Assets	24,00,00	24,00,00
20	Horticulture University, Haryana		
200031	Grants-in-Aid-General	1,00,00	1,00,00
200035	Grants for creation of Capital Assets	24,00,00	24,00,00
2415	Agricultural Research and Education (Major Head)		
02	Soil & Water Conservation (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
02	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		
020031	Grants-in-Aid-General	54,95,00	12,83,00
020036	Grants-in-Aid-Salaries	1,00,30,00	1,36,00
03	Climate Resilient Agriculture Initiative		
030031	Grants-in-Aid-General	56,00,00	8,00,00
030035	Grants for creation of Capital Assets	47,00,00	5,00,00
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid-General	1,16,15,00	8,61,51
010035	Grants for creation of Capital Assets	95,85,00	7,90,94
010036	Grants-in-Aid-Salaries	11,00,00	47,55
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		

1	2	3	4
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	52,36,00	5,37,00
010035	Grants for creation of Capital Assets	42,64,00	15,63,00
2415	Agricultural Research and Education (Major Head)		
80	General		
120	Assistance to Other Institutions		
02	Grants-in-Aid to Central Agricultural University, Bundelkhand		
020031	Grants-in-Aid-General	1,50,00	92,91
020036	Grants in Aid - Salaries	1,50,00	111,36
03	Grants-in-Aid to Central Agricultural University, Bihar		
030031	Grants-in-Aid-General	2,00,00	2,00,00
030035	Grants for creation of Capital Assets	1,50,00	1,50,00
030036	Grants-in-Aid-Salaries	6,50,00	6,50,00
05	Grant in Aid to National Academy of Agricultural Sciences and Indian Agricultural Universities Association		
050031	Grants-in-Aid-General	2,50,00	50,00
050035	Grants for creation of Capital Assets	2,50,00	2,36,41
050036	Grants in Aid - Salaries	1,00,00	73,00
	TOTAL - PLAN (Other than NEH & TSP) (A)	6,07,41,68	
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	15,60,00	88,00

1	2	3	4
010035	Grants for creation of Capital Assets	1,40,00	12,00
03	Agricultural Extension Institutes, Research & Education Schemes		
030035	Grants for creation of Capital Assets	13,77,00	79,62
04	Horticulture Institutes, Research & Education Schemes		
040031	Grants-in-Aid-General	6,64,60	1,44,10
05	Agricultural Education Institutes, Res. & Education Schemes		
050031	Grants-in-Aid-General	20,50,00	11,19,00
07	Agriculture University, Andhra Pradesh		
010031	Grants-in-Aid-General	1,60,00	1,60,00
010035	Grants for creation of Capital Assets	2,00,00	2,00,00
08	Horticulture University, Telangana		
010031	Grants-in-Aid-General	1,60,00	1,60,00
010035	Grants for creation of Capital Assets	2,00,00	2,00,00
2415	Agricultural Research and Education (Major Head)		
02	Soil & Water Conservation (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		
010031	Grants-in-Aid-General	19,40,00	3,20,28
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		

1	2	3	4
010031	Grants-in-Aid-General	9,85,00	9,00
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
796	Tribal Area Sub-Plan (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010035	Grants for creation of Capital Assets	1,03,00	5,00
	TOTAL - PLAN (TSP) (B)		24,97,00
2552	North Eastern Areas (Major-Head)		
254	Crop Husbandry - Assistance to ICAR		
01	Crop Science Institutes, Research & Education Schemes		
010036	Grants-in-Aid-Salaries	14,00,00	4,05,00
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid-General	4,02,40	2,78,57
020035	Grants for creation of Capital Assets	4,12,60	2,61,53
020036	Grants-in-Aid-Salaries	2,85,00	59,90
03	Agricultural Extension Institutes, Research & Education Schemes		
030031	Grants-in-Aid-General	7,00,00	1,00,00
030035	Grants for creation of Capital Assets	2,00,00	77,16
030036	Grants-in-Aid-Salaries	71,00,00	11,16,70
04	Agricultural Education Institutes, Research & Education Schemes		
040031	Grants-in-Aid-General	8,00,00	3,50,00
040035	Grants for creation of Capital Assets	15,00,00	4,50,00
06	Agricultural Engineering Instts., Research and Education Schemes		
060031	Grants-in-Aid-General	51,00	24,90

1	2	3	4
060035	Grants for creation of Capital Assets	34,00	15,30
060036	Grants-in-Aid-Salaries	2,15,00	59,80
255	Soil & Water Conservation - Assistance to ICAR		
01	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		
010031	Grants-in-Aid-General	27,45,00	5,19,00
010035	Grants for creation of Capital Assets	12,55,00	7,60,30
02	Climate Resilient Agriculture Initiative		
020031	Grants-in-Aid-General	4,00,00	1,00,0
020035	Grants for creation of Capital Assets	3,00,00	1,00,0
256	Animal Husbandry - Assistance to ICAR		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid-General	12,00,00	6,92,8
010036	Grants-in-Aid-Salaries	1,00,00	30,0
257	Fisheries - Assistance to ICAR		
01	Fisheries Institutes Research & Education Schemes		
010031	Grants-in-Aid-General	1,55,00	46,0
010035	Grants for creation of Capital Assets	1,45,00	54,0
259	General (Agricultural Research & Education Schemes)		
01	Central Agricultural University, Imphal		
010035	Grants for creation of Capital Assets	76,00,00	6,00,0
010036	Grants-in-Aid-Salaries	70,00,00	3,00,0
02	Central Agricultural University, Barapani		
020031	Grants-in-Aid-General	50,00	50,0
020035	Grants for creation of Capital Assets	5,00,00	5,00,0

1	2	3	4
020036	Grants-in-Aid-Salaries	50,00	50,00
	TOTAL - PLAN (NEH) (C)		70,01,00
	Grand Total (A+B+C)		7,02,39,68
	NON-PLAN		
2415	Agricultural Research and Education (Major Head)		
01	Crop Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Crop Science Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	2,86,34,35	1,35
010035	Grants for creation of Capital Assets	2,88,00	29,00
010036	Grants-in-Aid-Salaries	4,89,36,65	23,65
02	Horticulture Institutes, Research & Education Schemes		
020031	Grants-in-Aid-General	97,82,96	17,96
020035	Grants for creation of Capital Assets	1,46,00	9,00
020036	Grants-in-Aid-Salaries	2,25,51,04	3,65,04
03	I.C.A.R. Headquarter Administration including ASRB, DIPA, IPR Management and Consortia Research Platforms		
030031	Grants-in-Aid-General	78,50,65	2,19,00
030035	Grants for creation of Capital Assets	1,29,00	1,00
030036	Grants-in-Aid-Salaries	64,47,00	6,42,00
05	Payment of Net Proceeds of Cess Under Agricultural Produce Cess Act, 1940		
06	Agricultural Extension Institutes, Research & Education Schemes		
060031	Grants-in-Aid-General	1,03,00	1,00
060036	Grants-in-Aid-Salaries	2,85,00	1,00
07	Agricultural Education Institutes, Research & Education Schemes		

1	2	3	4
070031	Grants-in-Aid-General	36,42,70	1,05,70
070036	Grants-in-Aid-Salaries	14,30,30	30
08	Agricultural Economics & Statistics Institutes, Research & Education Schemes		
080031	Grants-in-Aid-General	8,94,80	11,80
080035	Grants for creation of Capital Assets	8,00	1,00
080036	Grants-in-Aid-Salaries	28,65,20	2,38,20
09	Agricultural Engineering Institutes, Research & Education Schemes		
090031	Grants-in-Aid-General	35,80,17	7,17
090035	Grants for creation of Capital Assets	47,00	1,00
090036	Grants-in-Aid-Salaries	73,29,83	5,48,83
2415	Agricultural Research and Education (Major Head)		
02	Soil & Water Conservation (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
02	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		
020031	Grants-in-Aid-General	1,16,00,82	64,82
020035	Grants for creation of Capital Assets	1,33,50	16,50
020036	Grants-in-Aid-Salaries	2,66,48,68	9,21,68
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes		
010031	Grants-in-Aid-General	2,00,88,90	23,90
010035	Grants for creation of Capital Assets	2,57,10	26,10

1	2	3	4
010036	Grants-in-Aid-Salaries	3,12,04,00	7,63,00
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	1,15,93,70	2,10,70
010035	Grants for creation of Capital Assets	98,00	23,00
010036	Grants-in-Aid-Salaries	1,51,08,30	26,30
	TOTAL-NON-PLAN - Major Head	2415	43,00,00

In addition to the above, the following savings pertaining to the Token Supplementary Grant approved in the First and Third batch of Supplementary Demand for Grants 2015-16 under Major Head '2415' and Major Head '2552' are also surrendered:

Table 3

	(In	thousands of	Rupees
Code No.	Particulars	Amount provided in 1st batch of Token Supplementary Demands for Grants 2015-16	Saving Amount
1	2	3	4
	PLAN		
2415	Agricultural Research and Education (Major Head)		
02	Horticulture Institutes, Research & Education Schemes		
150	Assistance to I.C.A.R. (Minor Head)		
020031	Grants-in-Aid-General	10	10
020035	Grants for creation of Capital Assets	10	10
020036	Grants-in-Aid-Salaries	10	10
2415	Agricultural Research and Education (Major Head)		
03	Animal Husbandry (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes & Schemes	1	
010031	Grants-in-Aid-General	10	10
010035	Grants for creation of Capital Assets	10	10

1	2	3	4
2415	Agricultural Research and Education (Major Head)		
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	10	10
010035	Grants for creation of Capital Assets	10	10
2415	Agricultural Research and Education (Major Head)		
80	General (Sub-Major Head)		
120	Assistance to other Institutions (Minor Head)		
03	Grants-in-Aid to Central Agricultural University, Bihar		
030031	Grants-in-Aid-General	10	10
030035	Grants for creation of Capital Assets	10	10
030036	Grants-in-Aid-Salaries	10	10
	Total Table 3: (1st batch of Token Supplementary Grants 2015-16)	1,00	1,00

Table 4

(In thousands of Rupees)

	(111	tilousarius or	Rupces)
Code No.	Particulars	Amount provided in 3rd batch of Token Supplementary Demands for Grants 2015-16	Saving Amount
1	2	3	4
2415	Agricultural Research and Education (Major Head)		
01	01 - Crop Husbandry (Sub-Major Head)		
150	150 - Assistance to ICAR (Minor Head)		
06	Agricultural Extension Institutes, Research & Education Schemes		
060031	Grants-in-Aid-General	25	25
17	Agricultural University, Andhra Pradesh		
170031	Grants-in-Aid-General	25	25
18	Horticulture University, Telangana		
180031	Grants-in-Aid-General	25	25
2415	Agricultural Research and Education (Major He	ad)	
05	Fisheries (Sub-Major Head)		
150	Assistance to I.C.A.R. (Minor Head)		
01	Fisheries Institutes, Research & Education Schemes		
010031	Grants-in-Aid-General	25	25
2552	North Eastern Areas (Major Head)		
254	Crop Husbandry - Assistance to ICAR		
01	Crop Science Institutes, Research & Education Schemes		

1	2	3	4
010031	Grants-in-Aid-General	25	25
255	Soil and Water conservation - Assistance to ICAR (Minor Head)		
01	Natural Resource Management Institutes including Agro-Forestry Research and Education Schemes		
010036	Grants-in-Aid-Salaries	25	25
256	Animal Husbandry - Assistance to ICAR		
01	Animal Science Institutes, Research & Education Schemes including Dairy Research Institutes and Schemes		
010035	Grants for creation of Capital Assets	25	25
259	General (Agricultural Research & Education)		
01	Grants-in-Aid-General to Central Agricultural University, Imphal		
010031	Grants-in-Aid-General	25	25
	Total Table 4: (3rd batch of Token Supplementary Grants 2015-16)	2,00	2,00

The total surrender under Demand No. 2 - DARE for the year 2015-16 is summarized as under:

(In thousands of Rupees)

Revenue Section (Voted)

Surrender from	Plan	Non-Plan	Total
Major Head 2415	6,32,40,68	43,00,00	6,75,40,68
Major Head 2552	70,02,00	-	70,02,00
GRAND TOTAL	7,02,42,68	43,00,00	7,45,42,68

Sd/-(Sowmya Srikanth) Under Secretary to the Govt. of India

To,

Shri Amrish Kumar, Under Secretary, Ministry of Finance, Department of Economic Affairs, Room No. 237, North Block, New Delhi.

- Copy to: 1. Pay & Account Officer (A/Cs), PAO (Sect.II), Compilation Section, Ministry of Agriculture, 16-A, Akbar Road Hutment, New Delhi-110011.
 - 2. Pay & Account Officer, PAO (Sectt.I), Ministry of Agriculture, Krishi Bhawan, New Delhi

Sd/-(Sowmya Srikanth) Under Secretary to the Govt. of India

FIN No. F. 1(21)/2015-Budget Government of India Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education)

(Re-appropriation Order No. 10)

Krishi Bhawan, New Delhi Dated the 28th March, 2016

То

Pay & Accounts Officer, Pay & Accounts Office (Sectt.I), Ministry of Agriculture, Department of Agriculture & Co-operation, Krishi Bhawan, New Delhi-110001

Subject: Re-appropriation of funds of Rs. 60,50,39 thousands from Plan/Revenue/Voted to Plan/Revenue/Voted under Demand No. 2 - D.A.R.E. during 2015-16 - reg.

Sir,

I am directed to convey the approval of the Secretary (Expenditure), Ministry of Finance for reappropriation of funds from Plan/Revenue/Voted to Plan/Revenue/Voted of Rs. 60,50,39 thousands under Demand No. 2 - D.A.R.E. during 2015-16 as per approval of the Parliament in Third batch of Token Supplementary Demands for Grants 2015-16 (copy enclosed). In this regard, sanction is conveyed to the following reappropriation of funds under Demand No. 2 - DARE during 2015-16:

(Re-appropriation of funds from Plan/Revenue/Voted to Plan/ Revenue/Voted)

(Rs. in thousands)

	FROM			ТО	
Code	Particulars	Amount	Code	Particulars	Amount
1	2	3	4	5	6
2415	Agricultural Research and Education (Major Head)		2415	Agricultural Research and Education (Major Head)	

1	2	3	4	5	6
01	Crop Husbandry (Sub-Major Head)		01	Crop Husbandry (Sub-Major Head)	
150	Assistance to I.C.A.R. (Minor Head)		150	Assistance to I.C.A.R. (Minor Head)	
01	Crop Science Institutes, Research & Education Schemes		01	Crop Science Institutes, Research & Education Schemes	
010035	Grants for creation of Capital Assets	16,76,95	010036	Grants-in-Aid-Salaries	4,42,00
02	Horticulture Institutes, Research & Education Schemes		06	Agricultural Extension Institutes, Research & Education Schemes	
020031	Grants-in-Aid-General	15,95,00	060031	Grants-in-Aid-General	12,75,00
020036	Grants-in-Aid-Salaries	3,17,08	060035	Grants for creation of Capital Assets	5,15,70
			060036	Grants-in-Aid-Salaries	5,09,30
03	I.C.A.R. Headquarters Administration including ASRB, DIPA, IPR Management		07	Agricultural Education Institutes, Research & Education Schemes	
030036	Grants-in-Aid-Salaries	45,32	070036	Grants-in-Aid-Salaries	30,00
09	Agricultural Engineering Institutes, Research & Education Schemes		09	Agricultural Engineering Institutes, Research & Education Schemes	
090036	Grants-in-Aid-Salaries	5,09,90	090035	Grants for creation of Capital Assets	1,17,25
14	National Fund for Basic, Strategic and Frontier Application Research in Agriculture		17	Agriculture University, Andhra Pradesh	
140036	Grants-in-Aid-Salaries	1,09,00	170031	Grants-in-Aid-General	1,60,00
			170035	Grants for creation of Capital Assets	2,00,00
			18	Horticulture University, Telangana	
			180031	Grants-in-Aid-General	1,60,00
			180035	Grants for creation of Capital Assets	2,00,00
			2415	Agricultural Research and Education (Major Head)	
			02	Soil & Water Conservation (Sub- Major Head)	
			150	Assistance to I.C.A.R. (Minor Head)	
			02	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes	
			020035	Grants for creation of Capital Assets	5,19,00

1	2	3	4	5	6
			2415	Agricultural Research and Education (Major Head)	
			80	General	
			120	Assistance to Other Institutions	
			02	Grants-in-Aid to Central Agricultural University, Bundelkhand	
			020035	Grants for creation of Capital Assets	1,25,00
	TOTAL - PLAN (Other than NEH & TSP)	(A)	42,53,25	TOTAL - PLAN (Other than NEH & TSP) (A)	42,53,25
2415	Agricultural Research and Education (Major Head)		2415	Agricultural Research and Education (Major Head)	
01	Crop Husbandry (Sub-Major Head)		01	Crop Husbandry (Sub-Major Head)	
796	Tribal Area Sub-Plan (Minor Head)		796	Tribal Area Sub-Plan (Minor Head)	
03	Agricultural Extension Institutes, Research & Education Schemes		03	Agricultural Extension Institutes, Research & Education Schemes	
030035	Grants for creation of Capital Assets	43,38	030031	Grants-in-Aid-General	3,23,00
04	Horticulture Institutes, Research & Education Schemes		05	Agricultural Education Institutes, Res. & Education Schemes	
040035	Grants for creation of Capital Assets	1,35,90	050035	Grants for creation of Capital Assets	3,50,00
05	Agricultural Education Institutes, Res. & Education Schemes				
050031	Grants-in-Aid-General	3,28,00			
2415	Agricultural Research and Education (Major Head)		2415	Agricultural Research and Education (Major Head)	
02	Soil & Water Conservation (Sub-Major Head)		03	Animal Husbandry (Sub-Major Head)	
796	Tribal Area Sub-Plan (Minor Head)		796	Tribal Area Sub-Plan (Minor Head)	
01	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		01	Animal Science Institutes, Res. & Education Schemes including Dairy Research Institutes & Schemes	
010035	Grants for creation of Capital Assets	1,79,72	010035	Grants for creation of Capital Assets	9,00
			2415	Agricultural Research and Education (Major Head)	
			05	Fisheries	
			796	Tribal Area Sub-Plan (Minor Head)	

1	2	3	4	5	6
			01	Fisheries Institutes, Research & Education Schemes	
			010031	Grants-in-Aid-General	5,00
	TOTAL - PLAN (Tribal Area Sub-Plan) (B)	6,87,00		TOTAL - PLAN (Tribal Area Sub-Plan) (B)	6,87.00
2552	North Eastern Areas (Major-Head)		2552	North Eastern Areas (Major-Head)	
254	Crop Husbandry - Assistance to ICAR		254	Crop Husbandry - Assistance to ICAR	
03	Agricultural Extension Institutes, Research & Education Schemes		01	Crop Science Institutes, Research & Education Schemes	
030035	Grants for creation of Capital Assets	22,84	010031	Grants-in-Aid-General	5,00
030036	Grants-in-Aid-Salaries	1,83,30			
255	Soil & Water Conservation - Assistance to ICAR		255	Soil & Water Conservation - Assistance to ICAR	
01	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes		01	Natural Resource Management Institutes, Research & Education Schemes including Agro-forestry, Research and Education Schemes	
010031	Grants-in-Aid-General	9,04,00	010036	Grants in Aid - Salaries	1,83,30
			256	Animal Husbandry - Assistance to ICAR	
			01	Animal Science Institutes, Res. & Education Schemes including Dairy Research Institutes & Schemes	
			010035	Grants for creation of Capital Assets	22,84
			259	General (Agricultural Research & Education Schemes)	
			01	Central Agricultural University, Imphal	
			010031	Grants-in-Aid-General	8,99,00
	TOTAL - PLAN (NEH) (C)	11,10,14		TOTAL - PLAN (NEH) (C)	11,10,14
	Grand Total (A+B+C)	60,50,39		Grand Total (A+B+C)	60,50,39

Reasons for re-appropriation under Plan:

- 1. Savings under Plan are mainly due to reduction in allocations at the Revised Estimates 2015-16 stage owing to slow pace of expenditure.
- 2. The allocation for Grants for creation of Capital Assets and Grants-in-Aid-Salaries have been reassessed in the RE 2015-16 allocations and thus matching allocation from Grant-in-Aid-General has been re-appropriated to Grants for creation of Capital Assets in various schemes.

This issues with the approval of Secretary (Expenditure), Ministry of Finance *vide* U.O. Dy. No. 8981/CDN/16 dated 23.03.2016.

Sd/-(Sowmya Srikanth) Under Secretary to the Govt. of India

Copy forwarded for information and necessary action to:

- (1) AAO (Sectt.-I), E.P.-I, Section, Deptt. of Agri. & Coop., Krishi Bhawan, New Delhi.
- (2) PAO (Sectt.II), Compilation Section, Ministry of Agriculture, 16-A, Akbar Road, New Delhi.
- (3) U.S. (Fin./Budget), Krishi Bhawan, New Delhi.
- (4) Guard File/Spare copies (5).

Sd/-(Sowmya Srikanth) Under Secretary to the Govt. of India

ANNEXURE V

QUARTERLY ALLOCATIONS VIS-À-VIS EXPENDITURE FOR DARE DURING 2015-16

								(Rs. in crore)
	QEA.I	QEA. II	QEA. III	Jan., 16	Feb., 16	Mar., 16	QEA. IV*	Total
			Monthly	Monthly Expenditure Projection	Projection			
Plan	1796.00	49.50	922.75	889.75	16.50	16.50	922.75	3691.00
Non-Plan	1529.65	2.95	439.15	655.28	0.98	0.98	657.25	2629.00
Total	3325.65	52.45	1361.90	1545.03	17.48	17.48	1580.00	6320.00
			Ac	Actual Expenditure	ure			
Plan	601.49	1195.09	919.59	0.00	178.49	80.52	259.01	2975.18
Non-Plan	1528.00	1.32	437.68	611.72	5.34	1.94	619.00	2586.00
Total	2129.49	1196.41	1357.27	611.72	183.83	82.46	878.01	5561.18
			Perc	Percentage Expenditure	diture			
Plan	16.30%	32.38%	24.91%	0.00%	4.84%	2.18%	7.02%	80.61%
Non-Plan	58.12%	0.05%	16.65%	23.27%	0.20%	0.07%	23.55%	88.36%
Total	33.69%	18.93%	21.48%	%89.6	2.91%	1.30%	13.89%	87.99%

DETAILS OF ALTERNATIVE SYSTEM OF INFORMATION DISSEMINATION TO THE FARMERS OTHER THAN PUBLICATIONS

ICAR-DKMA is undertaking information dissemination to farmers through various alternative systems other than publication:—

1. ICAR Websites (www.incar.org.in)

ICAR websites presents a comprehensive view of institutional set-up and R&D activities including agricultural education. It has various farmer friendly sections for providing information to farmers in English and Hindi. Weather based agro-advisory is the foremost section for the use of farmers who can prepare themselves and their fields according to changing patterns of weather. The advisory prepared by concern scientists and is updated on regular basis. ICAR website also present success stories of farmers on its homepage to motivate farmers for adoption of new technologies and other scientific interventions which can enhance income of farmers. The video gallery of the websites presents useful videos for the farmers. Besides, ICAR website provides contacts and links of the institutions (including KVKs) which can be helpful to farmers in their farming activities. The website also hosts e-books of farmers interest.

Currently ICAR website is visited by approximately 3.00 lakh visitors per month.

2. ICAR Facebook Page (www.facebook.com/In Agrisearch)

To have an interaction with stakeholders including farmers. ICAR Facebook page was launched in February, 2013 and it gained popularity by recording nearly 1.15 lakh as on date. To sustain the interest of farmers, the content is suitably modified and enriched with photographs and simple information is farmer friendly manner. We receive queries of the farmers and other visitors which are suitably replied by the experts.

3. ICAR YouTube (www.youtube.com/user/incarindia?feature= results main)

ICAR YouTube channel was launched with objective to present improved agricultural technologies and other intervention to the farmers in an easy to comprehend manner through videos. Currently it has more than 150 videos mainly for the benefit of farmers.

4. KRISHI (http://krishi.icar.gov.in/)

KRISHI (Knowledge based Resources Information Systems Hub for Innovations in Agriculture), is an initiative of Indian Council of Agricultural Research (ICAR) to bring its knowledge resources on to all stakeholders at one place. The portal is being developed as a centralized data repository system of ICAR consisting of Technology, Data generated through Experiments/Surveys/Observational studies, Geo-spatial data, Publications, Learning Resources etc. It is a vast resource which can be used by farmers for upgrading of their knowledge and skills for better productivity.

ANNEXURE VII

STATE/DISTRICT-WISE MAP OF POTENTIAL AREA FOR EXPANSION OF
DIFFERENT PULSE CROPS BY 2020

States/districts	Chickpea	Pigeonpea	Mungbean	Urdbean	Lentil	Fieldpea
1	2	3	4	5	6	7
Andhra Pradesh						
Krishna	0	0	1500	6000	0	0
Ananthapur	5000	5000	3000	0	0	0
Kurnool	10000	6000	0	0	0	0
East Godavari	0	0	3000	2000	0	0
West Godavari	0	0	1500	5000	0	0
Chittor	3000	_	_	_	_	_
Guntur	0	2000	2000	5000	0	0
Nellore	5000	1500	6000	4000	0	0
Vizianagaram	0	0	3000	1000	0	0
Prakasham	10000	3000	0	2000	0	0
Cuddapah	5000	2500	3000	0	0	0
Tirupathi	0	2500	_	_	_	_
Total	38000	22500	23000	25000	0	0
Assam						
Barpeta	0	0	0	0	0	500
Dhubri	0	0	0	500	0	0
Dibrugarh	0	0	0	500	300	_
Chirang	0	0	0	0	0	0
Darrang	0	0	0	0	0	500
Golaghat	0	0	0	0	0	500
Jorhat	0	0	0	500	0	500
Karbi Anglong	0	0	0	0	0	0
Kamrup	0	0	0	1500	300	0

1	2	3	4	5	6	7
Kokrajhar	0	0	0	2000	0	0
Lakhipur	0	0	0	2000	300	500
Morigaon	3000	1000	0	0	_	300
Nagaon	4000	1000	0	500	300	300
Total	7000	2000	0	7500	1200	3100
Bihar						
Arhasia	0	1000	0	0	0	300
Aurangabad	2000	0	0	0	1500	500
Bhabua	2000	0	0	0	0	0
Bhagalpur	2000	0	0	0	600	300
Bhojpur	2000	0	0	0	0	300
Arwal	0	0	0	0	0	0
Begusarai	0	0	0	0	0	300
Champaran (East)	0	0	1000	0	0	0
Champaran (West)	0	0	0	300	0	300
Darbhanga	0	0	1000	0	0	0
Buxar	2000	0	0	0	0	0
Rohtas	2000	0	_	_	_	_
Gaya	0	0	0	0	1500	0
Jahanabad	2000	0	0	0	1500	0
Katihar	0	0	500	400	0	0
Khagaria	0	0	500	300	0	500
Kishanganj	0	1500	1000	0	0	0
Lakhisaria	0	0	0	0	1000	0
Madhubani	0	0	1500	0	1000	0
Madhepura	0	0	2000	0	0	0
Monghyr	2000	0	0	0	1500	0
Muzaffarpur	0	0	3500	0	0	0

1	2	3	4	5	6	7
Nalanda	2000	0	0	0	1000	0
Nevada	2000	0	_	_	_	_
Patna	2000	0	0	0	2000	700
Purnia	0	1500	1500	0	0	0
Sitamarhi	0	0	550	0	0	0
Saharsa	0	1000	2000	0	0	0
Sahibganj	0	0	0	0	1000	0
Samastipur	0	0	2000	0	0	0
Supaul	0	0	1500	0	0	0
Vaishali	0	0	1500	0	0	0
Total	22000	5000	20050	10000	12600	3200
Chhattisgarh						
Ambikapur	0	2000	0	0	0	500
Baikuthpur	0	1500	0	0	0	500
Balod	0	0	0	0	0	0
Bastar	5000	0	0	500	0	0
Bijapur	0	0	0	0	0	0
Bilaspur	5000	0	0	200	0	0
Dantewara	8000	0	_	_	_	_
Dhamtari	7000	0	0	0	0	500
Durg	8000	0	0	0	500	0
Jagdalpur	6000	0	_	_	_	_
Janjgir-champa	0	0	0	1000	0	0
Jaspurnagar	0	1500	0	0	0	0
Kanker	6000	0	0	0	0	500
Kawardha	5000	0	0	200	0	0
Mahasmund	0	0	400	0	0	0
Raipur	8000	0	0	500	500	0

1	2	3	4	5	6	7
Rajgarh	0	0	400	0	0	0
Rajnandgaon	8000	0	0	0	200	0
Sarguja	0	0	0	1000	200	500
Total	66000	5000	800	3400	1400	2500
Gujarat						
Ahmednagar	0	2000	0	0	0	0
Anand	0	2500	500	0	0	0
Areli	0	0	500	500	0	0
Bharuch	0	2500	0	0	0	0
Banaskantha	0	5000	3000	500	0	0
Dang	0	3000	0	500	0	0
Dohad	8000	2500	0	0	0	0
Jamnagar	6000	2500	2000	500	0	0
Junagadh	6000	2500	500	1500	0	0
Kheda	0	3000	0	0	0	0
Panchmahal	8000	2000	1000	0	0	0
Porbander	10000	2500	500	0	0	0
Narmada	0	1500	0	0	0	0
Navsari	0	1500	0	500	0	0
Mehsana	0	0	0	1000	0	0
Rajkot	5000	1500	0	0	0	0
Sabarkantha	0	4000	2000	5000	0	0
Surat	0	2500	2000	0	0	0
Surendranagar	5000	2500	0	0	0	0
Tapi	0	2500	2000	0	0	0
Vadodara	0	2500	0	500	0	0
Total	48000	50500	14000	10500	0	0
Haryana						
Ambala	0	0	0	0	0	_

1	2	3	4	5	6	7
Bhiwani	2000	150	900	0	0	0
Hisar	2000	250	500	0	0	0
Mahendragarh	1000	150	0	0	0	0
Kaithal	0	150	0	0	0	0
Karnal	0	0	0	0	0	0
Kurukshetra	0	100	0	0	0	0
Panipat	0	100	0	0	0	0
Yamunanagar	0	100	0	0	0	0
Total	5000	1000	1400	0	0	0
Jharkhand						
Garhwa	2000	4500	0	0	100	500
Dumka	3000	3500	0	0	0	0
Dhanbad	3000	2500	500	0	0	0
Giridih	3000	2500	0	0	0	500
Godda	0	2500	0	0	200	0
Gumla	2000	2500	0	0	0	0
Hazaribagh	5000	3500	500	0	0	0
Koderma	5000	2500	0	0	0	0
Latehar	3000	2000	0	0	200	0
Lohardaga	2000	3500	0	0	0	0
Pakur	0	2000	0	0	0	0
Palamau	4000	5000	1000	0	200	500
Ranchi	5000	5000	1000	0	0	500
Sahibganj	0	2500	0	0	200	0
Simdega	2000	2500	500	0	0	0
Singhbhum (West)	4000	2500	0	0	300	500
Singhbhum (East)	4000	2500	0	0	0	500
Total	47000	51500	3500	0	1200	3000

1	2	3	4	5	6	7
Karnataka						
Belgam	0	0	2000	0	0	0
Bagalkot	4000	0	3000	0	0	0
Belgaun	4000	0	0	0	0	0
Bellary	4000	6000	0	0	0	0
Bidar	12000	7000	3000	0	0	0
Bijapur	7000	8000	0	0	0	0
Chitradurga	2000	6000	0	0	0	0
Dharwad	8000	0	2000	0	0	0
Gadag	3000	0	3000	0	0	0
Gulbarga	20000	20000	3000	0	0	0
Hassan	5000	4000	0	0	0	0
Haveri	3000	0	0	0	0	0
Koppal	0	5000	0	0	0	0
Mandya	5000	0	0	0	0	0
Mysore	5000	0	0	4000	0	0
North Kanara	0	0	0	0	0	0
Raichur	4000	7000	0	0	0	0
Tumkur	4000	5000	0	0	0	0
Shimoga	0	0	500	500	0	0
Yadgir	0	6000	0	0	0	0
Total	90000	74000	16500	4500	0	0
Madhya Pradesh						
Ashok Nagar	20000	0	0	6000	2400	0
Annuppur	0	0	0	0	12000	500
Betul	0	2500	0	500	0	500
Bhind	0	0	0	0	0	500
Chhatarpur	35000	0	900	10000	0	1000
Chhindwara	0	3000	300	1000	0	500

1	2	3	4	5	6	7
Datia	10000	3000	0	0	0	1500
Damoh	35000	0	0	3000	3600	1000
Dhar	20000	0	500	0	0	0
Dindori	0	0	0	500	4000	1500
Dewas	35000	3000	0	0	0	0
Guna	25000	3000	0	0	0	0
Gwalior	25000	2500	0	0	0	0
Harda	25000	2500	2000	0	2400	0
Hosangabad	20000	3000	2000	0	2400	0
Indore	25000	500	0	0	0	0
Jabalpur	20000	3000	0	800	3000	2000
Jhabua	0	3000	0	500	0	0
Katni	0	0	0	0	1500	500
Mandla	0	0	0	0	1500	2500
Mandsaur	0	0	1000	1500	0	0
Narsimpur	30000	2000	300	1000	3400	1000
Panna	25000	0	200	1000	4000	2000
Raisen	35000	5000	0	0	900	1000
Rajgarh	30000	2000	0	0	1200	0
Ratlam	30000	2000	0	0	0	0
Rewa	0	0	0	1000	_	0
Sagar	20000	2500	0	3000	4000	1500
Satna	20000	2500	500	2000	3000	0
Sehore	35000	2500	1000	0	1000	0
Seoni	0	0	0	0	0	1000
Shajapur	20000	0	0	500	1000	0
Shivpuri	30000	0	500	2000	0	0
Sidhi	0	2000	0	0	0	0

1	2	3	4	5	6	7
Tikamgarh	0	2000	800	6000	0	1000
Ujjain	35000	4000	0	0	0	0
Vidisha	35000	3000	0	5000	4000	0
Total	640000	58500	10000	26400	30900	19500
Maharashtra						
Akola	20000	7000	3000	1000	0	0
Ahmednagar	25000	8000	2000	1000	0	0
Amravati	20000	9000	3000	500	0	0
Aurangabad	25000	5000	1000	500	0	0
Beed	10000	6000	1000	1000	0	0
Buldhana	15000	6000	5500	5000	0	500
Chandrapur	5000	6000	0	0	500	0
Dhule	0	0	2000	1000	0	0
Hingoli	5000	7000	0	1000	0	0
Jalgoan	5000	0	4500	4000	0	0
Jalna	0	9000	4000	1000	0	0
Kolhapur	5000	0	0	3000	0	0
Latur	20000	10000	2500	5000	0	500
Nagpur	10000	5000	0	0	0	0
Nanded	5000	5000	3000	6000	0	500
Nasik	5000	0	0	1000	0	0
Osmanabad	5000	10000	2000	6000	0	0
Parbhani	5000	8000	4000	1000	0	0
Pune	5000	3000	0	0	0	0
Sangli	5000	3000	1000	1000	0	500
Satara	5000	3000	500	0	0	0
Solapur	5000	6000	0	0	0	500
Washim	5000	6000	3000	3000	0	0

1	2	3	4	5	6	7
Wardha	5000	8000	0	0	500	0
Yavatmal	5000	10000	1000	1000	0	500
Total	220000	140000	45500	45000	1000	3000
Manipur						
Churachandpur	500	0	0	0	300	0
Chandel	500	0	0	0	0	0
Bishnupur	500	0	0	0	0	0
Imphal East	750	0	0	0	0	0
Imphal West	750	0	0	0	0	0
Senapati	500	0	0	0	600	0
Thoubal	500	0	0	0	0	0
Tamenglong	500	0	0	0	0	0
Ukhrul	500	0	0	0	600	0
Total	5000	0	0	0	1500	0
Odisha						
Berhampur	0	1000				
Bhadrak	0	0	0	0	1500	0
Bolangir	0	0	2000	800	0	0
Buragarh	0	0	2000	500	0	0
Cuttack	0	0	5000	2000	1500	0
Ganjam	0	500	4500	1000	0	0
Jagatsinghpur	0	0	3000	0	0	0
Jajpur	0	0	0	1000	0	0
Kalahandi	0	0	1500	1000	1500	0
Kendrapara	0	0	2500	1500	0	0
Keonjhar	0	1000	1000	0	0	0
Khurda	0	0	1000	0	0	0
Koraput	0	0	0	0	1500	0

1	2	3	4	5	6	7
Mayurbhanj	0	0	0	0	3000	0
Navapara	0	0	0	1000	0	0
Nayagarh	0	500	3000	500	0	0
Puri	0	0	3000	1000	0	0
Total	0	3000	28500	10300	9000	0
Punjab						
Ludhiana	0	0	1500	0	0	0
Bhatinda	500	0	0	0	0	0
Fazilka	500	0	0	0	0	0
Firozpur	1000	0	0	0	0	0
Gurdaspur	500	0	0	0	0	0
Moga	0	0	3000	0	0	0
Patiala	0	0	4500	0	0	0
Sangroor	0	0	3000	0	0	0
Fatehgarh Sahib	0	0	3000	0	0	0
Total	2500	0	15000	0	0	0
Rajasthan						
Ajmer	25000	0	8000	0	0	0
Banswara	5000	500	1000	1000	0	0
Barmer	0	0	5000	0	0	0
Bhilwara	0	500	0	0	0	0
Chitradurga	0	500	0	0	0	0
Bikaner	25000	0	0	0	0	0
Churu	30000	0	3000	0	0	0
Dausa	5000	0	0	0	0	0
Ganganagar	25000	0	5600	0	0	0
Hanumangarh	30000	0	3000	0	0	0
Jaipur	10000	1000	8000	0	0	0

Jalwad Jalore Jhunjhunu	0 0 30000	500 0	0	0	0	0
		0				U
Ibunibunu	30000		9000	0	0	0
Jilulijilullu		0	2000	0	0	0
Jodhpur	0	0	9000	0	0	0
Karauli	5000	500	0	0	0	0
Kota	5000	500	0	2000	2000	0
Nagaur	5000	0	20000	0	0	0
Pali	5000	0	10000	0	0	0
Sikar	10000	0	1000	0	0	0
Tonk	5000	0	4000	0	0	0
Udaipur	0	1000	0	0	0	0
Total	220000	5500	70600	3000	2000	0
Tamil Nadu						
Coimbatore	0	1500	0	0	0	0
Cudallore	0	0	0	4000	0	0
Nagpatinam	0	0	3000	3000	0	0
Namakaal	0	0	500	0	0	0
Pudukottai	0	1500	500	600	0	0
Thanajavur	0	0	1000	1000	0	0
Thoothkudi	0	0	0	3000	0	0
Tiruvarur	0	0	1500	3600	0	0
Vellore	0	3000	0	0	0	0
Villupuram	0	0	0	2000	0	0
Total	0	6000	16500	17200	0	0
Telangana						
Adilabad	3000	3000	1000	1000	0	0
Karimnagar	0	5000	1500	0	0	0
Khammam	0	5000	1500	1000	0	0

1	2	3	4	5	6	7
Mehboobnagar	3000	5000	1500	0	0	0
Medak	2000	0	4000	2000	0	0
Nalgonda	0	3000	3000	1000	0	0
Rangareddy	2000	10000	1000	1000	0	0
Srikakulum	0	0	3000	4000	0	0
Warangal	0	10000	2000	1000	0	0
Nizamabad	3000	3000	0	0	0	0
Total	13000	44000	18500	11000	0	0
Tripura						
Dhalai	0	0	300	0	0	0
Gomati	0	0	0	0	0	0
North (Tripura)	250	0	450	0	500	0
South (Tripura)	250	0	450	0	500	0
West (Tripura)	500	0	300	0	500	0
Total	1000	0	1500	0	1500	0
Uttar Pradesh						
Agra	0	500	500	0	0	0
Allahabad	0	1500	500	0	0	500
Aligarh	0	1000	4000	0	0	0
Amroha	0	500	0	0	0	0
Auraiya	0	500	1000	0	0	0
Azamgarh	0	0	0	0	0	1000
Badaun	0	500	0	2000	0	0
Bagpat	0	0	0	0	0	0
Balrampur	0	250	0	2000	0	0
Ballia	0	0	0	0	2000	0
Banda	20000	2000	500	0	4000	0
Barabanki	0	500	1000	0	0	0

1	2	3	4	5	6	7
Basti	0	500	0	0	0	1000
Behraich	0	0	0	0	4000	0
Bijnour	0	0	0	0	0	0
Bullandshahar	0	0	1500	0	0	0
Chandauli	0	0	0	0	1000	0
Chitrakoot	10000	3500	0	0	2000	0
Etah	0	500	1000	1000	0	1500
Etawah	0	1000	2000	1000	0	1000
Faizabad	0	0	0	0	0	500
Fatehpur	8000	1500	1000	500	0	0
Firozabad	0	1000	500	500	0	0
Gazipur	0	3500	0	0	1000	0
Gonda	0	250	1500	0	1500	0
Hardoi	0	250	0	3000	500	0
Hamirpur	8000	2000	500	2000	5000	1500
Jaunpur	0	500	0	0	0	500
Jalaun	7000	2000	0	500	5000	10000
Jhansi	2000	2000	500	3000	5000	4000
Kanpur Dehat	3000	1000	1200	0	0	0
Kaushambi	0	2000	0	0	0	0
Kheri	0	0	0	0	1000	0
Lalitpur	5000	2000	1000	15000	1000	6000
Mahoba	7000	1500	1000	5000	3000	3000
Mainpuri	0	2500	1000	0	0	0
Mirzapur	5000	3500	0	0	500	0
Moradabad	0	0	0	1500	0	0
Muzaffarnagar	0	0	500	0	0	0
Pratapgarh	0	500	500	1000	0	0

1	2	3	4	5	6	7
Raebareli	0	500	500	1500	0	0
Shahajahanpur	0	0	0	1000	2000	0
Sitapur	0	250	0	1500	1000	0
Sonbhadra	2000	2500	0	0	3000	0
Shrivasti	0	0	0	0	2000	0
Sultanpur	0	500	500	1000	0	1000
Unnao	0	0	700	2000	0	0
Total	77000	42000	21900	47000	46500	27000
West Bengal						
Birbhum	1000	0	0	0	600	0
Burdwan	0	0	500	0	0	0
Coochbehar	0	0	500	500	0	0
Malda	1000	0	500	1500	600	0
Murshidabad	1000	0	500	1000	1400	0
Nadia	1000	0	0	1000	1600	0
North 24 Parganas	0	0	0	500	500	0
South 24 Parganas	0	0	1000	0	0	0
North Dinajpur	0	0	500	0	0	0
West Dinapur	0	0	2550	0	0	0
Total	4000	0	6050	4500	4700	0
Grand Total 1	505500	510500	313300	225300	112000	61300

Potential Districts under Minor Pulses

Crop	State	Districts	Potential Area (ha.)
Mothbean	Rajasthan	Barmer, Churu, Bikaner, Nagaur, Jodhpur, Pali, Jalore	1,00,000
	Gujarat	Kutch, Patan, Mehsana, Banaskantha, Surendranagar	15,000
	Maharashtra	Dhule, Solapur, Ahmednagar	5,000
	Karnataka	Bijapur, Belgaum, Raichur	5,000
	Total		1,25,000
Horsegram	Karnataka	Mysore, Chamarajanagar, Hassan, Mandya	40,000
	Odisha	Bolangir, Kalahandi, Sundergarh	10,000
	Tamil Nadu	Dharmapuri, Krishnagiri, Salem	10,000
	Chhattisgarh	Korba, Jagdalpur, Ambikapur, Bastar, Kanker	10,000
	Maharashtra	Ahmednagar, Nasik, Pune, Dhule, Solapur	5,000
	Andhra Pradesh	Ananthapur	3,000
	Bihar	Sumal, Zamui, Purnia, Kisanganj, Arahasia	2,000
	Jharkhand	Palamu, Garwah, Chakra, Latehar	2,000
	Total		82,000
Cowpea	Karnataka	Mysore, Hassan, Tumkur, Gadag, Yadgiri, Raichur, Bellary	20,000
	Tamil Nadu	Thoothukudi, Nagapttinam, Tirunelveli, Virudhnagar, Krishnagiri	10,000
	Kerala	Ernakulum, Kollam, Kottayam, Kozhikode, Wayanad, Thrissur, Thiruvananthapuram	10,000
	Andhra Pradesh	Guntur, Anantpur, Kurnool, Medak, Cuddapah	9,100
	Gujarat	Mehsana, Banaskantha, Sabarkantha, Anand, Patan	5,000
	Rajasthan	Sikar, Jhunjhunu, Ajmer, Jaipur	10,000
	Uttar Pradesh	Gorakhpur, Basti	1,000
	Total		65,100
	Grand Total		2,72,100

DETAILS OF RESEARCH STATIONS FUNCTIONING UNDER NICRA PROJECT IN THE COUNTRY

STRATEGIC RESEARCH CENTRES

Sl.No.	Institute/Organization
1	2
1.	ICAR-Central Institute of Agricultural Engineering (CIAE), Bhopal
2.	ICAR-Central Institute of Brackish Water Aquaculture (CIBA), Chennai
3.	ICAR-Central Inland Fisheries Research Institute (CIFRI), Barrackpore
4.	ICAR-Central Marine Fisheries Research Institute (CMFRI), Kochi
5.	ICAR-Central Research Institute for Dryland Agriculture (CRIDA), Hyderabad
6.	ICAR-National Rice Research Institute (NRRI), Cuttack
7.	ICAR-Indian Institute of Rice Research (IIRR), Hyderabad
8.	ICAR-Indian Institute of Water Management (IIWM), Bhubaneswar
9.	ICAR-Indian Agricultural Research Institute (IARI), New Dehi
10.	ICAR Research Complex for Eastern Region (ICAR RCER), Ranchi
11.	ICAR Research Complex for NEH Region (ICAR RCNEH), Meghalaya
12.	ICAR-Indian Institute of Horticultural Research (IIHR), Bangalore
13.	ICAR-Indian Institute of Pulses Research (IIPR), Kanpur
14.	ICAR-Indian Institute of Vegetable Research (IIVR), Varanasi
15.	ICAR-Indian Veterinary Research Institute (IVRI), Izatnagar
16.	ICAR-National Research Centre for Integrated Pest Management (NCIPM), New Delhi
17.	ICAR-National Dairy Research Institute (NDRI), Karnal

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18. ICAR-National Institute of Abiotic Stress Management (NIASM),
Baramati

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- 19. ICAR-Central Agroforesty Research Institute (CAFRI), Jhansi
- 20. ICAR-National Research Centre on Plant Biotechnology (NRCPB), New Delhi
- 21. ICAR-Indian Institute of Farming Systems Research (IIFSR), Modipuram
- 22. ICAR-Central Arid Zone Research Institute (CAZRI), Jodhpur
- 23. ICAR-Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar
- 24. ICAR-Central Institute for Research on Goats (CIRG), Makhdoom
- 25. ICAR-Central Institute of Temperate Horticulture (CITH), Srinagar
- 26. ICAR-Central Potato Research Institute (CPRI), Shimla
- 27. ICAR-Central Soil Salinity Research Institute (CSSRI), Karnal
- 28. ICAR-Indian Institute of Soil & Water Conservation (IISWC),
 Dehradun
- 29. ICAR-Central Sheep and Wool Research Institute (CSWRI), Avikanagar
- 30. ICAR-Indian Institute of Maize Research (IIMR), New Delhi
- 31. ICAR-Directorate of Onion and Garlic Research (DOGR), Pune
- 32. ICAR-Directorate on Poultry Research (DPR), Hyderabad
- 33. ICAR-Directorate of Soybean Research (DSR), Indore
- 34. ICAR-Indian Institute of Wheat and Barley Research (IIWBR), Karnal
- 35. ICAR-Indain Grassland and Fodder Research Institute (IGFRI), Jhansi
- 36. ICAR-Indian Institute of Soil Science (IISS), Bhopal
- ICAR-National Bureau of Plant Genetic Resources (NBPGR), New Delhi
- 38. ICAR-National Bureau of Soil Survey & Land Use Planning (NBSS&LUP), Nagpur

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- 39. ICAR-National Institute of Agricultural Economics and Policy Research (NIAP), New Delhi
- 40. ICAR-National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI), Bangalore

SPONSORED GRANTS COMPONENT CENTRES

- 1. Agri Biotech Foundation (ABF), Hyderabad
- 2. Central Institute for Cotton Research (CICR), Nagpur
- 3. Indian Institute of Sugarcane Research (IISR), Lucknow
- 4. National Council for Climate Change, Sustainable Development and Public Leadership (NCCSD), Ahmednagar
- 5. Punjab Agricultural University (PAU), Ludhiana
- Central Soil Salinity Research Institute (CSSRI), Karnal AICRPAM CENTRES
- 1. Akola, PDKV, MS
- 2. Anand, AAU, Gujarat
- 3. Anantapur, ANGRAU, AP
- 4. Bangalore, UAS, Bangalore
- 5. Bhubaneshwar, OUAT, Odisha
- 6. Bijapur, UAS, Karnataka
- 7. Dapoli, Dr. BSKVV, Dapoli, MS
- 8. Faizabad, NDUAT, UP
- 9. Hisar, CCSHAU, Haryana
- 10. Jabalpur, JNKVV, MP
- 11. Chatha, SKUAS & T, J&K
- 12. Jorhat, Assam AU, Assam
- 13. Kanpur, CSAUAT, UP
- 14. Kovilpatti, TNAU, TN
- 15. Ludhiana, PAU, Punjab
- 16. Mohanpur, BCKVV, West Bengal
- 17. Palampur, HPKVV, HP

1	2
18.	Parbhani, VNMKV, MS
19.	Raipur, IGAU, Chhattisgarh
20.	Ranchi, BAU, Jharkhand
21.	Ranichauri, UUHF, UP
22.	Samastipur, RAU, Bihar
23.	Solapur, MPKV, MS
24.	Thrissur, KAU, Kerala
25.	Udaipur, MPUAT, Rajasthan
	AICRPDA CENTRES
1.	Agra_SC
2.	Akola_MC
3.	Ananthapur_MC
4.	Arjia_MC
5.	B.Chariali_MC
6.	Bal.Saunkhri_MC
7.	Bangalore_MC
8.	Bijapur_MC
9.	Chianki_MC
10.	Faizabad_SC
11.	Hisar_MC
12.	Indore_MC
13.	Jagdalpur
14.	Jhansi
15.	Kovipatti_MC
16.	Parbhani_MC
17.	Phulbani_MC
18.	R. Dhiansar_SC
19.	Rewa_MC
20.	S.K. Nagar_MC

1	2
21.	Solapur_MC
22.	Targhadia_MC
23.	Varanasi_MC
	TECHNOLOGY DEMONSTRATION COMPONENT—NICRA
1.	ATARI, ZONE-I, Ludhiana
2.	Bathinda
3.	Chamba
4.	Faridkot
5.	Fatehgarh Shaib
6.	Hamirpur
7.	Kathua
8.	Kinnaur
9.	Kullu
10.	Phulwama
11.	Ropar
12.	Sirsa
13.	Yamunanagar
14.	Bandipura
15.	ATARI, ZONE-II, Kolkota
16.	Aurangabad
17.	Buxar
18.	Chatra
19.	Coochbehar
20.	East Singhbhum
21.	Gumla
22.	Jehanabad
23.	Koderma
24.	Nawadah
25.	Malda

- 26. Palamau
- 27. Port Blair
- 28. Saran
- 29. South 24 Parganas
- 30. Supaul
- 31. Banka
- 32. Godda
- 33. ATARI, ZONE-III, Barapani
- 34. Cachar
- 35. Dhubri
- 36. Dibrugarh
- 37. Dimapur
- 38. East Sikkim
- 39. Imphal East
- 40. Lunglei
- 41. Mokokchung
- 42. Phek
- 43. Senapati
- 44. Sonitpur
- 45. Tirap
- 46. Umaim
- 47. West Garo Hills
- 48. West Kameng
- 49. West Siang
- 50. West Tripura
- 51. Ukhrul
- 52. Jaintia Hills
- 53. Serchchip

- 54. Mon
- 55. Dhalai
- 56. Karbi-Anglong
- 57. ATARI, ZONE-IV, Kanpur
- 58. Baghpat
- 59. Bahraich
- 60. Chitrakoot
- 61. Gonda
- 62. Gorakhpur
- 63. Hamirpur
- 64. Jhansi
- 65. Kushinagar
- 66. Mahrajganj
- 67. Muzaffarnagar
- 68. Sonbhadra
- 69. Tehri Garhwal
- 70. Uttarkashi
- 71. Kaushambi
- 72. Pratapgarh
- 73. ATARI, ZONE-V, Hyderabad
- 74. Ahmednagar
- 75. Amravati (Durgapur)
- 76. Anantapur
- 77. Aurangabad_MH
- 78. Buldana
- 79. Khammam
- 80. Kurnool
- 81. Nalgonda

2	

- 82. Nandurbar
- 83. Pune

1

- 84. Ratnagiri
- 85. Srikakulam
- 86. West Godavari
- 87. Jalna
- 88. Chittoor
- 89. ATARI, ZONE-VI, Jodhpur
- 90. Bharatpur
- 91. Jhunjhunu
- 92. Jodhpur
- 93. Kota
- 94. Kutch
- 95. Rajkot
- 96. Valsad
- 97. Barmer
- 98. Banaskantha
- 99. Amreli
- 100. ATARI, ZONE-VII, Jabalpur
- 101. Balaghat
- 102. Bilaspur
- 103. Chhatapur
- 104. Dantewada
- 105. Datia
- 106. Ganjam
- 107. Guna
- 108. Jharsugda
- 109. Kendrapara

1	2
110.	Morena
111.	Raipur
112.	Satna
113.	Sonepur
114.	Tikamgarh
115.	Ratlam
116.	Jhubua
117.	Kalahandi
118.	ATARI, ZONE-VIII, Bangalore
119.	Alleppey
120.	Belgaum
121.	Davanagere
122.	Kolar
123.	Thiruvarur
124.	Namakkal
125.	Ramanathapuram
126.	KVK - Hirehalli
127.	Villupuram
128.	Gadag
129.	Kalaburgai (Gulbarga)

ANNEXURE IX

STATE-WISE DETAILS OF FUND ALLOCATION TO INSTITUTIONS/ RESEARCH STATIONS/KVKS UNDER NICRA $-\ 2014-15$

(Rs. in lakh)

Component	State	Centre E	Budget Sanctioned during 2014-15
1	2	3	4
ATARI (ZONE-II)	A&N ISLANDS	Port Blair	9.50000
STRATEGIC RES. COMPONENT	ANDHRA PRADESH	CRIDA, Hyderabad	680.07575
STRATEGIC RES. COMPONENT	ANDHRA PRADESH	DRR, Hyderabad	140.00000
SPONSORED GRANTS COMPONENT	ANDHRA PRADESH	ABF, Hyderabad	14.68000
SPONSORED GRANTS COMPONENT	ANDHRA PRADESH	ICRISAT, Patanchero	u 30.90648
ATARI (ZONE-V)	ANDHRA PRADESH	Hyderabad (ZPD)	8.00000
ATARI (ZONE-V)	ANDHRA PRADESH	Anantapur	11.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Khammam	10.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Kurnool	12.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Nalgonda	9.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Srikakulam	14.50000
ATARI (ZONE-V)	ANDHRA PRADESH	West Godavari	15.50000
AICRPAM	ANDHRA PRADESH	Anantapur	9.60000
AICRPDA	ANDHRA PRADESH	Anantapur	9.80000
ATARI (ZONE-III)	ARUNACHAL PRADESH	Tirap	7.00000
ATARI (ZONE-III)	ARUNACHAL PRADESH	West Kameng	6.50000
ATARI (ZONE-III)	ARUNACHAL PRADESH	West Siang	6.50000
ATARI (ZONE-III)	ASSAM	Cachar	8.20000

1	2	3	4
ATARI (ZONE-III)	ASSAM	Dhubri	9.10000
ATARI (ZONE-III)	ASSAM	Dibrugarh	8.10000
ATARI (ZONE-III)	ASSAM	Sonitpur	8.00000
AICRPAM	ASSAM	Jorhat	12.50000
AICRPDA	ASSAM	B. Chariali	15.00000
ATARI (ZONE-II)	BIHAR	Aurangabad	18.00000
ATARI (ZONE-II)	BIHAR	Buxar	11.50000
ATARI (ZONE-II)	BIHAR	Jehanabad	12.50000
ATARI (ZONE-II)	BIHAR	Nawadah	13.50000
ATARI (ZONE-II)	BIHAR	Saran	16.50000
ATARI (ZONE-II)	BIHAR	Supaul	12.50000
AICRPAM	BIHAR	Samastipur	8.64580
ATARI (ZONE-VII)	CHHATTISGARH	Bilaspur	5.61600
ATARI (ZONE-VII)	CHHATTISGARH	Dantewada	8.90800
ATARI (ZONE-VII)	CHHATTISGARH	Raipur	8.20800
AICRPAM	CHHATTISGARH	Raipur	9.85000
AICRPDA	CHHATTISGARH	Jagdalpur	11.50000
SPONSORED GRANTS	GUJARAT	NCCSD, Ahmedabad	20.40000
ATARI (ZONE-VI)	GUJARAT	Kutch	9.00000
ATARI (ZONE-VI)	GUJARAT	Rajkot	8.00000
ATARI (ZONE-VI)	GUJARAT	Valsad	11.00000
AICRPAM	GUJARAT	Anand	9.90000
AICRPDA	GUJARAT	S.K. Nagar	8.50000
AICRPDA	GUJARAT	Targhadia	7.30000
STRATEGIC RES.	HARYANA	NDRI, Karnal	338.64355
STRATEGIC RES.	HARYANA	CSSRI, Karnal	26.87000

1	2	3	4
STRATEGIC RES.	HARYANA	DWR, Karnal	19.15000
SPONSORED GRANTS	HARYANA	CSSRI, Karnal	9.00000
ATARI (ZONE-I)	HARYANA	Sirsa	9.15000
ATARI (ZONE-I)	HARYANA	Yamunanagar	9.00000
AICRPAM	HARYANA	Hisar	7.25000
ICRPDA	HARYANA	Hisar	12.35000
TRATEGIC RES.	HIMACHAL PRADESH	CPRI, Shimla	22.81000
OMPETITIVE GRANTS	HIMACHAL PRADESH	YSPUH&F, Solan	6.73000
TARI (ZONE-I)	HIMACHAL PRADESH	Chamba	9.94000
TARI (ZONE-I)	HIMACHAL PRADESH	Hamirpur	10.60000
TARI (ZONE-I)	HIMACHAL PRADESH	Kinnaur	12.41000
TARI (ZONE-I)	HIMACHAL PRADESH	Kullu	16.32000
ICRPAM	HIMACHAL PRADESH	Palampur	12.80000
TRATEGIC RES.	JAMMU & KASHMIR	CITH, Srinagar	26.46000
ICRPAM	JAMMU & KASHMIR	Jammu (Chatha)	10.36000
ICRPDA	JAMMU & KASHMIR	Rakhdhiansar	7.30000
TARI (ZONE-I)	JAMMU & KASHMIR	Kathua	10.85000
TARI (ZONE-I)	JAMMU & KASHMIR	Phulwama	15.25000
TRATEGIC RES.	JHARKHAND	ICAR (RCER), Ranchi	100.00000
ICRPAM	JHARKHAND	Ranchi	7.60173
ICRPDA	JHARKHAND	Chaianki	8.25000
TARI (ZONE-II)	JHARKHAND	Chatra	11.50000
TARI (ZONE-II)	JHARKHAND	East Singhbhum	8.50000
TARI (ZONE-II)	JHARKHAND	Gumla	11.50000

1	2	3	4
ATARI (ZONE-II)	JHARKHAND	Koderma	10.50000
ATARI (ZONE-II)	JHARKHAND	Palamau	12.50000
STRATEGIC RES. COMPONENT	KARNATAKA	IIHR, Bangalore	452.00000
STRATEGIC RES. COMPONENT	KARNATAKA	NIVEDI, Bengaluru	17.81000
SPONSORED GRANTS	KARNATAKA	UAS, Bangalore	0.37000
COMPETITIVE GRANTS	KARNATAKA	NIANP, Bangalore	11.23000
COMPETITIVE GRANTS	KARNATAKA	UAS, Bangalore	10.00000
ATARI (ZONE-VIII)	KARNATAKA	Bangalore (ZPD)	6.00000
ATARI (ZONE-VIII)	KARNATAKA	Belgaum	12.50000
ATARI (ZONE-VIII)	KARNATAKA	Davanagere	11.50000
ATARI (ZONE-VIII)	KARNATAKA	Kolar	15.50000
ATARI (ZONE-VIII)	KARNATAKA	Tumkur	18.00000
AICRPAM	KARNATAKA	Bangalore	10.30000
AICRPAM	KARNATAKA	Bijapur	10.60000
AICRPDA	KARNATAKA	Bangalore	10.90000
AICRPDA	KARNATAKA	Bijapur	8.45000
STRATEGIC RES.	KERALA	CMFRI, Kochin	244.00000
ATARI (ZONE-VIII)	KERALA	Alleppey	12.51000
AICRPAM	KERALA	Trissur	10.50000
COMPETITIVE GRANTS	MADHYA PRADESH	RVSKVV, Gwalior	24.20000
STRATEGIC RES. COMPONENT	MADHYA PRADESH	CIAE, Bhopal	61.24000
STRATEGIC RES.	MADHYA PRADESH	DSR, Indore	18.81000

1	2	3	4
STRATEGIC RES.	MADHYA PRADESH	IISS, Bhopal	24.93000
ATARI (ZONE-VII)	MADHYA PRADESH	Jabalpur (ZPD)	8.25000
ATARI (ZONE-VII)	MADHYA PRADESH	Balaghat	8.26130
ATARI (ZONE-VII)	MADHYA PRADESH	Chhatapur	5.60000
ATARI (ZONE-VII)	MADHYA PRADESH	Datia	11.60800
ATARI (ZONE-VII)	MADHYA PRADESH	Guna	8.64134
ATARI (ZONE-VII)	MADHYA PRADESH	Morena	8.60800
ATARI (ZONE-VII)	MADHYA PRADESH	Satna	10.10800
ATARI (ZONE-VII)	MADHYA PRADESH	Tikamgarh	6.04602
AICRPAM	MADHYA PRADESH	Jabalpur*	8.60000
AICRPDA	MADHYA PRADESH	Indore	12.55000
AICRPDA	MADHYA PRADESH	Rewa	8.15000
STRATEGIC RES. COMPONENT	MAHARASHTRA	NIASM, Baramati	71.45904
SPONSORED GRANTS	MAHARASHTRA	CICR, Nagpur	66.00000
COMPETITIVE GRANTS	MAHARASHTRA	NRCC, Nagpur	20.00000
ATARI (ZONE-V)	MAHARASHTRA	Ahmednagar	10.50000
ATARI (ZONE-V)	MAHARASHTRA	Amravati (Durgapur)	13.50000
ATARI (ZONE-V)	MAHARASHTRA	Aurangabad	19.19592
ATARI (ZONE-V)	MAHARASHTRA	Gondia	0.30408
ATARI (ZONE-V)	MAHARASHTRA	Nandurbar	10.50000
ATARI (ZONE-V)	MAHARASHTRA	Pune	16.50000
ATARI (ZONE-V)	MAHARASHTRA	Ratnagiri	8.50000
AICRPAM	MAHARASHTRA	Akola	8.30000
AICRPAM	MAHARASHTRA	Dapoli	7.80000
AICRPAM	MAHARASHTRA	Parbhani	8.40000
AICRPAM	MAHARASHTRA	Solapur	12.40000

1	2	3	4
AICRPDA	MAHARASHTRA	Akola	11.30000
AICRPDA	MAHARASHTRA	Solapur	10.90000
AICRPDA	MAHARASHTRA	Parbhani	11.40000
STRATEGIC RES. COMPONENT	MAHARASHTRA	DOGR, Pune	26.37000
STRATEGIC RES. COMPONENT	MAHARASHTRA	NBSS&LUP, Nagpur	63.31000
ATARI (ZONE-III)	MANIPUR	Imphal East	8.00000
ATARI (ZONE-III)	MANIPUR	Senapati	8.10000
ATARI (ZONE-III)	MEGHALAYA	Barapani (ZPD)	7.00000
ATARI (ZONE-III)	MEGHALAYA	Umaim	8.00000
ATARI (ZONE-III)	MEGHALAYA	West Garo Hills	9.50000
STRATEGIC RES. COMPONENT	MEGHALAYA	ICAR (NEH), Barapani	365.00000
ATARI (ZONE-III)	MIZORAM	Lunglei	8.00000
ATARI (ZONE-III)	NAGALAND	Dimapur	8.00000
ATARI (ZONE-III)	NAGALAND	Mokokchung	8.00000
ATARI (ZONE-III)	NAGALAND	Phek	8.00000
STRATEGIC RES. COMPONENT	NEW DELHI	IARI, New Delhi	676.00000
STRATEGIC RES. COMPONENT	NEW DELHI	NCIPM, New Delhi	168.00000
STRATEGIC RES. COMPONENT	NEW DELHI	NRCPB, New Delhi	213.92547
STRATEGIC RES. COMPONENT	NEW DELHI	DMR, New Delhi	24.15000
STRATEGIC RES. COMPONENT	NEW DELHI	NBPGR, New Delhi	45.63000
STRATEGIC RES. COMPONENT	NEW DELHI	NCAP, New Delhi	12.31000
STRATEGIC RES. COMPONENT	ODISHA	CRRI, Cuttack	90.00000

1	2	3	4
STRATEGIC RES.	ODISHA	DWM, Bhubaneswar	90.85305
TRATEGIC RES.	ODISHA	CIFA, Bhubaneswar	28.23000
TARI (ZONE-VII)	ODISHA	Ganjam	9.70800
TARI (ZONE-VII)	ODISHA	Jharsugda	8.10800
TARI (ZONE-VII)	ODISHA	Kendrapara	9.70800
TARI (ZONE-VII)	ODISHA	Sonepur	9.10800
ICRPAM	ODISHA	Bhubaneswar	14.45247
ICRPDA	ODISHA	Phulbani	8.45000
PONSORED GRANTS OMPONENT	PUNJAB	PAU, Ludhiana	20.00000
TARI (ZONE-I)	PUNJAB	Ludhiana (ZPD)	8.35000
TARI (ZONE-I)	PUNJAB	Bathinda	7.70000
TARI (ZONE-I)	PUNJAB	Faridkot	15.50000
TARI (ZONE-I)	PUNJAB	Fatehgarh Shaib	13.75000
TARI (ZONE-I)	PUNJAB	Ropar	11.38000
ICRPAM	PUNJAB	Ludhiana	11.30000
ICRPDA	PUNJAB	B. Saunkhri	10.75000
TRATEGIC RES. OMPONENT	RAJASTHAN	CAZRI, Jodhpur	27.25000
TRATEGIC RES. OMPONENT	RAJASTHAN	CSWRI, Avikanagar	14.73000
TARI (ZONE-VI)	RAJASTHAN	Jodhpur (ZPD)	8.00000
TARI (ZONE-VI)	RAJASTHAN	Bharatpur	11.00000
TARI (ZONE-VI)	RAJASTHAN	Jhunjhunu	9.00000
TARI (ZONE-VI)	RAJASTHAN	Jodhpur	9.00000
TARI (ZONE-VI)	RAJASTHAN	Kota	9.00000
ICRPAM	RAJASTHAN	Udaipur	9.45000
ICRPDA	RAJASTHAN	Arjia	10.40000

1	2	3	4
ATARI (ZONE-III)	SIKKIM	East Sikkim	8.00000
STRATEGIC RES. COMPONENT	TAMIL NADU	CIBA, Chennai	85.00000
COMPETITIVE GRANTS COMPONENT	TAMIL NADU	Anna University, Chennai	0.23000
COMPETITIVE GRANTS			
COMPONENT	TAMIL NADU	MSSRF, Chennai	0.71000
ATARI (ZONE-VIII)	TAMIL NADU	Nagapattinam	0.00000
ATARI (ZONE-VIII)	TAMIL NADU	Namakkal	19.50000
ATARI (ZONE-VIII)	TAMIL NADU	Ramanathapuram	10.00000
ATARI (ZONE-VIII)	TAMIL NADU	Villupuram	15.50000
AICRPAM	TAMIL NADU	Kovilpatti	12.85000
AICRPDA	TAMIL NADU	Kovilpatti	8.95000
STRATEGIC RES. COMPONENT	TELANGANA	DPR, Hyderabad	15.21000
ATARI (ZONE-III)	TRIPURA	West Tripura	8.00000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	IIPR, Kanpur	60.00000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	IIVR, Varanasi	91.00000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	IVRI, Izatnagar	72.00000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	NRCAF, Jhansi	30.00000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	PDFSR, Modipuram	37.00000
STRATEGIC RES. COMPONENT	Uttar Pradesh	CIRG, Makhdoom	55.73000
STRATEGIC RES. COMPONENT	UTTAR PRADESH	IGFRI, Jhansi	18.65000
SPONSORED GRANTS COMPONENT	UTTAR PRADESH	IISR, Lucknow	70.75000

1	2	3	4
TARI (ZONE-IV)	UTTAR PRADESH	Kanpur (ZPD)	7.00000
TARI (ZONE-IV)	UTTAR PRADESH	Baghpat	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Bahraich	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Chitrakoot	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Gonda	7.50000
TARI (ZONE-IV)	UTTAR PRADESH	Gorakhpur	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Hamirpur	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Jhansi	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Kushinagar	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Maharajganj	6.50000
TARI (ZONE-IV)	UTTAR PRADESH	Muzaffarnagar	7.50000
TARI (ZONE-IV)	UTTAR PRADESH	Sonbhadra	6.50000
ICRPAM	UTTAR PRADESH	Faizabad	7.04000
ICRPAM	UTTAR PRADESH	Kanpur	11.75000
ICRPDA	UTTAR PRADESH	Agra	7.30000
ICRPDA	UTTAR PRADESH	Faizabad	1.15000
ICRPDA	UTTAR PRADESH	Jhansi	8.50000
ICRPDA	UTTAR PRADESH	Varanasi	8.85000
OMPETITIVE GRANTS OMPONENT	UTTARAKHAND	Doon University, Dehradun	0.90000
ICRPAM	UTTARAKHAND	Ranichauri	8.25000
TRATEGIC RES.	UTTARAKHAND	IISWC, Dehradun	31.46000
OMPONENT			
TARI (ZONE-IV)	UTTARAKHAND	Tehri Garhwal	6.50000
TARI (ZONE-IV)	UTTARAKHAND	Uttarkashi	8.50000
TRATEGIC RES. OMPONENT	WEST BENGAL	CIFRI, Barrackpore	60.00000
PONSORED GRANTS OMPONENT	WEST BENGAL	WBUAFS, Kolkata	7.43000

1	2	3	4
COMPETITIVE GRANTS COMPONENT	WEST BENGAL	IIT, Kharagpur	13.20000
ATARI (ZONE-II)	WEST BENGAL	Kolkata (ZPD)	7.00000
ATARI (ZONE-II)	WEST BENGAL	Coochbehar	8.50000
ATARI (ZONE-II)	WEST BENGAL	Malda	9.50000
ATARI (ZONE-II)	WEST BENGAL	South 24 Parganas	17.50000
AICRPAM	WEST BENGAL	Mohanpur	7.50000
TOTAL			6500.00000

ANNEXURE X

STATE-WISE DETAILS OF FUND ALLOCATION TO INSTITUTIONS/ RESEARCH STATIONS/KVKs UNDER NICRA $-\ 2015-16$

(Rs. in lakhs)

Component	State	Centre	Budget Sanctioned during 2015-16
1	2	3	4
ATARI (ZONE-II)	A & N ISLANDS	Port Blair	11.75000
ATARI (ZONE-V)	ANDHRA PRADESH	Anantapur	11.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Khammam	10.65000
ATARI (ZONE-V)	ANDHRA PRADESH	Kurnool	14.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Srikakulam	7.50000
ATARI (ZONE-V)	ANDHRA PRADESH	West Godavari	7.50000
ATARI (ZONE-V)	ANDHRA PRADESH	Chittoor (New)	15.05000
AICRPDA	ANDHRA PRADESH	Anantapur	11.65000
AICRPAM	ANDHRA PRADESH	Anantapur	10.30000
ATARI (ZONE-III)	ARUNACHAL PRADESH	Tirap	13.00000
ATARI (ZONE-III)	ARUNACHAL PRADESH	West Kameng	8.00000
ATARI (ZONE-III)	ARUNACHAL PRADESH	West Siang	9.00000
ATARI (ZONE-III)	ASSAM	Cachar	12.00000
ATARI (ZONE-III)	ASSAM	Dhubri	14.00000
ATARI (ZONE-III)	ASSAM	Dibrugarh	11.00000
ATARI (ZONE-III)	ASSAM	Sonitpur	10.00000
ATARI (ZONE-III)	ASSAM	Karbi-Anglong	14.00000
AICRPDA	ASSAM	Jorhat	11.44000
AICRPAM	ASSAM	B. Chariali	16.10000
ATARI (ZONE-II)	BIHAR	Aurangabad	11.75000

1	2	3	4
ATARI (ZONE-II)	BIHAR	Buxar	10.75000
ATARI (ZONE-II)	BIHAR	Jehanabad	11.05000
ATARI (ZONE-II)	BIHAR	Nawadah	11.50000
ATARI (ZONE-II)	BIHAR	Saran	11.50000
ATARI (ZONE-II)	BIHAR	Supaul	10.70000
ATARI (ZONE-II)	BIHAR	Banka (New)	15.75000
AICRPDA	BIHAR	Samastipur	11.37000
ATARI (ZONE-VII)	CHHATTISGARH	Bilaspur	10.75000
ATARI (ZONE-VII)	CHHATTISGARH	Dantewada	12.00000
ATARI (ZONE-VII)	CHHATTISGARH	Raipur	11.95000
AICRPDA	CHHATTISGARH	Raipur	12.26300
AICRPAM	CHHATTISGARH	Jagdalpur	11.85000
SPON. GRANTS COMPONENT	GUJARAT	NCCSD, Ahmedabad	11.10000
ATARI (ZONE-VI)	GUJARAT	Kutch	10.13000
ATARI (ZONE-VI)	GUJARAT	Rajkot	10.00000
ATARI (ZONE-VI)	GUJARAT	Valsad	11.75000
ATARI (ZONE-VI)	GUJARAT	Banaskantha	15.50000
ATARI (ZONE-VI)	GUJARAT	Amreli	15.00000
AICRPDA	GUJARAT	Anand	10.07000
AICRPAM	GUJARAT	S.K. Nagar	9.40000
AICRPAM	GUJARAT	Targhadia	8.85000
STR. RES. COMPONENT	HARYANA	NDRI, Karnal	504.00000
STR. RES. COMPONENT	HARYANA	CSSRI, Karnal	129.00000
STR. RES. COMPONENT	HARYANA	IIWBR, Karnal	84.00000
SPON. GRANTS COMPONENT	HARYANA	CSSRI, Karnal	6.50000

1	2	3	4
ATARI (ZONE-I)	HARYANA	Sirsa	9.40000
ATARI (ZONE-I)	HARYANA	Yamunanagar	11.58000
AICRPDA	HARYANA	Hisar	5.81000
AICRPAM	HARYANA	Hisar	11.30000
STR. RES. COMPONENT	HIMACHAL PRADESH	CPRI, Shimla	39.50000
ATARI (ZONE-I)	HIMACHAL PRADESH	Chamba	8.75000
ATARI (ZONE-I)	HIMACHAL PRADESH	Hamirpur	11.38000
ATARI (ZONE-I)	HIMACHAL PRADESH	Kinnaur	7.25000
ATARI (ZONE-I)	HIMACHAL PRADESH	Kullu	13.65000
AICRPDA	HIMACHAL PRADESH	Palampur	11.76000
AICRPDA	JAMMU & KASHMIR	Jammu (Chatha)	11.22600
AICRPAM	JAMMU & KASHMIR	Rakhdhiansar	8.30000
STR. RES. COMPONENT	JAMMU & KASHMIR	CITH, Srinagar	39.00000
ATARI (ZONE-I)	JAMMU & KASHMIR	Kathua	9.15000
ATARI (ZONE-I)	JAMMU & KASHMIR	Phulwama	14.29000
ATARI (ZONE-I)	JAMMU & KASHMIR	Bandipora	14.00000
STR. RES. COMPONENT	JARKHAND	ICAR (RCER), Patna	150.50000
AICRPDA	JHARKHAND	Ranchi	7.90000
AICRPAM	JHARKHAND	Chaianki	8.25000
ATARI (ZONE-II)	JHARKHAND	Chatra	12.00000
ATARI (ZONE-II)	JHARKHAND	East Singhbhum	11.00000
ATARI (ZONE-II)	JHARKHAND	Gumla	13.00000
ATARI (ZONE-II)	JHARKHAND	Koderma	10.75000
ATARI (ZONE-II)	JHARKHAND	Palamau	11.50000
ATARI (ZONE-II)	JHARKHAND	Godda (New)	15.75000
STR. RES. COMPONENT	KARNATAKA	IIHR, Bangalore	398.67000

1	2	3	4
STR. RES. COMPONENT	KARNATAKA	NIVEDI, Bengaloru	29.50000
ATARI (ZONE-VIII)	KARNATAKA	Bangalore (ZPD)	8.25000
ATARI (ZONE-VIII)	KARNATAKA	Belgaum	7.25000
ATARI (ZONE-VIII)	KARNATAKA	Davanagere	11.00000
ATARI (ZONE-VIII)	KARNATAKA	Kolar	12.00000
ATARI (ZONE-VIII)	KARNATAKA	Tumkur (Hirehalli)	13.50000
ATARI (ZONE-VIII)	KARNATAKA	Gadag (New)	17.25000
ATARI (ZONE-VIII)	KARNATAKA	Kalburgai (Gulbarga)	16.25000
AICRPDA	KARNATAKA	Bangalore	14.13800
AICRPDA	KARNATAKA	Bijapur	11.40000
AICRPAM	KARNATAKA	Bangalore	11.35000
AICRPAM	KARNATAKA	Bijapur	9.80000
STR. RES. COMPONENT	KERALA	CMFRI, Kochin	463.60000
ATARI (ZONE-VIII)	KERALA	Alleppey	8.75000
AICRPDA	KERALA	Trissur	7.95000
STR. RES. COMPONENT	MADHYA PRADESH	CIAE, Bhopal	126.53000
TR. RES. COMPONENT	MADHYA PRADESH	DSR, Indore	45.50000
TR. RES. COMPONENT	MADHYA PRADESH	IISS, Bhopal	46.00000
ATARI (ZONE-VII)	MADHYA PRADESH	Jabalpur (ZPD)	11.50000
ATARI (ZONE-VII)	MADHYA PRADESH	Balaghat	11.00000
ATARI (ZONE-VII)	MADHYA PRADESH	Chhatapur	6.75000
ATARI (ZONE-VII)	MADHYA PRADESH	Datia	15.00000
TARI (ZONE-VII)	MADHYA PRADESH	Guna	11.30000
ATARI (ZONE-VII)	MADHYA PRADESH	Morena	12.50000
TARI (ZONE-VII)	MADHYA PRADESH	Satna	15.50000

1	2	3	4
ATARI (ZONE-VII)	MADHYA PRADESH	Tikamgarh	6.75000
ATARI (ZONE-VII)	MADHYA PRADESH	Ratlam	15.75000
ATARI (ZONE-VII)	MADHYA PRADESH	Jhabua	15.75000
AICRPDA	MADHYA PRADESH	Jabalpur	7.56000
AICRPAM	MADHYA PRADESH	Indore	12.45000
AICRPAM	MADHYA PRADESH	Rewa	8.25000
STR. RES. COMPONENT	MAHARASHTRA	NIASM, Baramati	89.80000
STR. RES. COMPONENT	MAHARASHTRA	DOGR, Pune	77.10000
STR. RES. COMPONENT	MAHARASHTRA	NBSS&LUP, Nagpur	96.50000
SPON. GRANTS COMPONENT	MAHARASHTRA	CICR, Nagur	39.62486
ATARI (ZONE-V)	MAHARASHTRA	Ahmednagar	10.50000
ATARI (ZONE-V)	MAHARASHTRA	Amravati (Durgapur)	14.40000
ATARI (ZONE-V)	MAHARASHTRA	Aurangabad	14.50000
ATARI (ZONE-V)	MAHARASHTRA	Gondia (Buldana)	7.50000
ATARI (ZONE-V)	MAHARASHTRA	Nandurbar	11.50000
ATARI (ZONE-V)	MAHARASHTRA	Pune	11.65000
ATARI (ZONE-V)	MAHARASHTRA	Ratnagiri	8.50000
ATARI (ZONE-V)	MAHARASHTRA	Jalna	15.75000
AICRPDA	MAHARASHTRA	Akola	10.07000
AICRPDA	MAHARASHTRA	Dapoli	10.62000
AICRPDA	MAHARASHTRA	Parbhani	10.54000
AICRPDA	MAHARASHTRA	Solapur	12.27900
AICRPAM	MAHARASHTRA	Akola	11.40000
AICRPAM	MAHARASHTRA	Solapur	10.90000
AICRPAM	MAHARASHTRA	Parbhani	12.35000
ATARI (ZONE-III)	MANIPUR	Imphal East	13.50000

1	2	3	4
ATARI (ZONE-III)	MANIPUR	Senapati	10.00000
ATARI (ZONE-III)	MANIPUR	Ukhrul	16.00000
STR. RES. COMPONENT	MEGHALAYA	ICAR (NEH), Barapani	478.60000
ATARI (ZONE-III)	MEGHALAYA	Barapani (ZPD)	10.00000
ATARI (ZONE-III)	MEGHALAYA	Umaim	11.50000
ATARI (ZONE-III)	MEGHALAYA	West Garo Hills	12.00000
ATARI (ZONE-III)	MEGHALAYA	Jaintia Hills	14.00000
ATARI (ZONE-III)	MIZORAM	Lunglei	11.00000
ATARI (ZONE-III)	MIZORAM	Serchchip	16.00000
ATARI (ZONE-III)	NAGALAND	Dimapur	11.00000
ATARI (ZONE-III)	NAGALAND	Mokokchung	11.00000
ATARI (ZONE-III)	NAGALAND	Phek	9.00000
ATARI (ZONE-III)	NAGALAND	Mon	16.00000
STR. RES. COMPONENT	NEW DELHI	IARI, New Delhi	1012.60000
STR. RES. COMPONENT	NEW DELHI	NCIPM, New Delhi	168.50000
STR. RES. COMPONENT	NEW DELHI	NRCPB, New Delhi	186.00000
STR. RES. COMPONENT	NEW DELHI	IIMR, New Delhi	46.00000
STR. RES. COMPONENT	NEW DELHI	NBPGR, New Delhi	231.25000
STR. RES. COMPONENT	NEW DELHI	NIAP, New Delhi	12.50000
STR. RES. COMPONENT	ODISHA	NRRI, Cuttack	159.00000
STR. RES. COMPONENT	ODISHA	IIWM, Bhubaneswar	100.00000
STR. RES. COMPONENT	ODISHA	CIFA, Bhubaneswar	36.61000

1	2	3	4
ATARI (ZONE-VII)	ODISHA	Ganjam	10.25000
ATARI (ZONE-VII)	ODISHA	Jharsugda	11.00000
ATARI (ZONE-VII)	ODISHA	Kendrapara	12.00000
ATARI (ZONE-VII)	ODISHA	Sonepur	10.25000
ATARI (ZONE-VII)	ODISHA	Kalahandi	15.75000
AICRPDA	ODISHA	Bhubaneswar	9.56000
AICRPAM	ODISHA	Phulbani	8.60000
SPON. GRANTS COMPONENT	PUNJAB	PAU, Ludhiana	20.00000
ATARI (ZONE-I)	PUNJAB	Ludhiana (ZPD)	12.50000
ATARI (ZONE-I)	PUNJAB	Bathinda	14.57000
ATARI (ZONE-I)	PUNJAB	Faridkot	14.75000
ATARI (ZONE-I)	PUNJAB	Fatehgarh Shaib	12.00000
ATARI (ZONE-I)	PUNJAB	Ropar	9.73000
AICRPDA	PUNJAB	Ludhiana	10.25000
AICRPAM	PUNJAB	B. Saunkhri	11.35000
STR. RES. COMPONENT	RAJASTHAN	CAZRI, Jodhpur	90.20000
STR. RES. COMPONENT	RAJASTHAN	CSWRI, Avikanagar	85.00000
ATARI (ZONE-VI)	RAJASTHAN	Jodhpur (ZPD)	11.50000
ATARI (ZONE-VI)	RAJASTHAN	Bharatpur	11.75000
ATARI (ZONE-VI)	RAJASTHAN	Jhunjhunu	11.25000
ATARI (ZONE-VI)	RAJASTHAN	Jodhpur	11.75000
ATARI (ZONE-VI)	RAJASTHAN	Kota	15.62000
ATARI (ZONE-VI)	RAJASTHAN	Barmer	14.50000
AICRPDA	RAJASTHAN	Udaipur	11.58000
AICRPAM	RAJASTHAN	Arjia	11.40000
ATARI (ZONE-III)	SIKKIM	East Sikkim	12.50000

1	2	3	4
STR. RES. COMPONENT	TAMIL NADU	CIBA, Chennai	162.00000
ATARI (ZONE-VIII)	TAMIL NADU	Nagapattinam (Tiruvarur)	13.75000
ATARI (ZONE-VIII)	TAMIL NADU	Namakkal	12.00000
ATARI (ZONE-VIII)	TAMIL NADU	Ramanathapuram	5.75000
ATARI (ZONE-VIII)	TAMIL NADU	Villupuram	12.50000
AICRPDA	TAMIL NADU	Kovilpatti	10.30000
AICRPAM	TAMIL NADU	Kovilpatti	10.35000
ATARI (ZONE-V)	TELANGANA STATE	Hyderabad (ZPD)	16.00000
ATARI (ZONE-V)	TELANGANA STATE	Nalgonda	10.75000
STR. RES. COMPONENT	TELANGANA STATE	CRIDA, Hyderabad	1121.51514
STR. RES. COMPONENT	TELANGANA STATE	IIRR, Hyderabad	178.00000
STR. RES. COMPONENT	TELANGANA STATE	DPR, Hyderabad	70.00000
SPON. GRANTS COMPONENT	TELANGANA STATE	ABF, Hyderabad	10.32000
ATARI (ZONE-III)	TRIPURA	West Tripura	12.50000
ATARI (ZONE-III)	TRIPURA	Dhalai	16.00000
STR. RES. COMPONENT	UTTAR PRADESH	IIPR, Kanpur	140.30000
STR. RES. COMPONENT	UTTAR PRADESH	IIVR, Varanasi	110.50000
STR. RES. COMPONENT	UTTAR PRADESH	IVRI, Izatnagar	152.43000
STR. RES. COMPONENT	UTTAR PRADESH	CAFRI, Jhansi	99.50000
STR. RES. COMPONENT	UTTAR PRADESH	IIFSR, Modipuram	79.00000
STR. RES. COMPONENT	UTTAR PRADESH	CIRG, Makhdoom	69.50000

1	2	3	4
STR. RES. COMPONENT	UTTAR PRADESH	IGFRI, Jhansi	80.50000
PON. GRANTS	UTTAR PRADESH	IISR, Lucknow	10.75000
TARI (ZONE-IV)	UTTAR PRADESH	Kanpur (ZPD)	10.00000
TARI (ZONE-IV)	UTTAR PRADESH	Baghpat	12.25000
TARI (ZONE-IV)	UTTAR PRADESH	Bahraich	3.20000
TARI (ZONE-IV)	UTTAR PRADESH	Chitrakoot	12.25000
TARI (ZONE-IV)	UTTAR PRADESH	Gonda	13.35000
TARI (ZONE-IV)	UTTAR PRADESH	Gorakhpur	3.20000
TARI (ZONE-IV)	UTTAR PRADESH	Hamirpur	8.50000
TARI (ZONE-IV)	UTTAR PRADESH	Jhansi	9.00000
TARI (ZONE-IV)	UTTAR PRADESH	Kushinagar	14.75000
TARI (ZONE-IV)	UTTAR PRADESH	Mahrajganj	4.50000
TARI (ZONE-IV)	UTTAR PRADESH	Muzaffarnagar	19.00000
TARI (ZONE-IV)	UTTAR PRADESH	Sonbhadra	3.10000
TARI (ZONE-IV)	UTTAR PRADESH	Kaushambi	16.00000
ATARI (ZONE-IV)	UTTAR PRADESH	Pratapgarh	19.10000
ICRPDA	UTTAR PRADESH	Faizabad	4.50000
ICRPDA	UTTAR PRADESH	Kanpur	9.45300
ICRPAM	UTTAR PRADESH	Agra	7.95000
ICRPAM	UTTAR PRADESH	Faizabad	8.80000
ICRPAM	UTTAR PRADESH	Jhansi	9.35000
ICRPAM	UTTAR PRADESH	Varanasi	9.35000
TR. RES. COMPONENT	UTTARAKHAND	IISWC, Dehradun	85.50000
ICRPDA	UTTARAKHAND	Ranichauri	11.58400
TARI (ZONE-IV)	UTTARAKHAND	Tehri Garhwal	10.20000
TARI (ZONE-IV)	UTTARAKHAND	Uttarkhashi	16.35000

1	2	3	4
STR. RES. COMPONENT	WEST BENGAL	CIFRI, Barrackpore	110.50000
ATARI (ZONE-II)	WEST BENGAL	Kolkota (ZPD)	9.75000
ATARI (ZONE-II)	WEST BENGAL	Coochbehar	12.00000
ATARI (ZONE-II)	WEST BENGAL	Malda	11.00000
ATARI (ZONE-II)	WEST BENGAL	South 24 Parganas	12.25000
AICRPDA	WEST BENGAL	Mohanpur	8.72700
Total			9500.00000

ANNEXURE XI

MAJOR ACTIVITIES UNDERTAKEN BY THE KVKS BENEFITING FARMERS
DURING LAST THREE YEARS (UPTO DECEMBER 2015)

Sl.	State	Activities	Ye	ar-wise /	Achievem	ents
No.			2012-13	2013-14	2014-15	
						[upto Dec. 2015]
1	2	3	4	5	6	7
1.	Andaman and Nicobar Islands	On-farm trials and demonstrations (Number)	105	28	39	30
		Farmers and extension personnel trained (Number)	966	2192	1402	1066
		Production of Seed (in tonnes)	0	0	10	7.85
		Production of planting material (in lakh)	0.0045	0	0.549	0.39
		Live-stock strains and fingerlings (in lakh)	0.008	0.022	0.05	0.35
2.	Andhra Pradesh	On-farm trials and demonstrations (Number)	5578	6383	3619	3717
		Farmers and extension personnel trained (Number)	72845	73909	32286	18434
		Production of Seed (in tonnes)	563	988	24.57	53.49
		Production of planting material (in lakh)	5.16	12.42	12.12	5.35
		Live-stock strains and fingerlings (in lakh)	1.06	2.28	0.13	0.05
3.	Arunachal Pradesh	On-farm trials and demonstrations (Number)	2263	1365	2302	1848
		Farmers and extension personnel trained (Number)	22152	9712	39826	9892
		Production of Seed (in tonnes)	97.45	74.14	67.25	19
		Production of planting material (in lakh)	0.98	0.38	2.33	0.81
		Live-stock strains and fingerlings (in lakh)	0.22	0.16	1.32	0.44

1	2	3	4	5	6	7
4.	Assam	On-farm trials and demonstrations (Number)	4404	2310	3736	3316
		Farmers and extension personnel trained (Number)	37488	19128	65174	18526
		Production of Seed (in tonnes)	1435.56	1171.44	598.69	159.9
		Production of planting material (in lakh)	2.88	1.02	4.04	1.65
		Live-stock strains and fingerlings (in lakh)	0.67	0.41	2.02	0.82
5.	Bihar	On-farm trials and demonstrations (Number)	2676	5469	6725	14935
		Farmers and extension personnel trained (Number)	200748	155131	144040	81600
		Production of Seed (in tonnes)	1232.2	2203.8	4.08	2860
		Production of planting material (in lakh)	5.46	5.91	11.32	5.79
		Live-stock strains and fingerlings (in lakh)	0.013	0.026	0.056	1.58
ó.	Chhattisgarh	On-farm trials and demonstrations (Number)	2743	4850	4655	2033
		Farmers and extension personnel trained (Number)	52995	39214	56627	24223
		Production of Seed (in tonnes)	189	296	331.3	191.41
		Production of planting material (in lakh)	2.66	1.35	3.37	2.14
		Live-stock strains and fingerlings (in lakh)	0.008	0.20	0.07	2.06
7.	Delhi	On-farm trials and demonstrations (Number)	167	134	111	74
		Farmers and extension personnel trained (Number)	2248	1636	2000	1000
		Production of Seed (in tonnes)	20.88	17.29	16.71	1.49
		Production of planting material (in lakh)	0	0	0	0

1	2	3	4	5	6	7
		Live-stock strains and fingerlings (in lakh)	0	0	0	0
8.	Goa	On-farm trials and demonstrations (number)	445	443	137	51
		Farmers and Extension personnel trained (number)	1814	2022	2645	815
		Production of seed (in tonnes)	11.113	10.681	9.43	0
		Production of Planting materials (in lakh)	0.2	0.13	0.25	0.01
		Live stock strains and fingerlings (in lakh)	0.002	0	0.02	0
9.	Gujarat	On-farm trials and demonstrations (Number)	5139	9048	11048	9014
		Farmers and extension personnel trained (Number)	77692	85089	85710	51471
		Production of Seed (in tonnes)	202.47	422.18	196.48	29.33
		Production of planting material (in lakh)	30.99	16.99	27.96	5.52
		Live-stock strains and fingerlings (in lakh)	0.023	0.00002	0.00013	0.35
10.	Haryana	On-farm trials and demonstrations (Number)	3382	3357	2530	2557
		Farmers and extension personnel trained (Number)	63453	71310	60000	40000
		Production of Seed (in tonnes)	506.02	333.24	212.19	45.14
		Production of planting material (in lakh)	2.60	2.33	0.94	0.1
		Live-stock strains and fingerlings (in lakh)	123964	81698	3.84	0
11.	Himachal Pradesh	On-farm trials and demonstrations (Number)	5750	2496	1917	2012
		Farmers and extension personnel trained (Number)	27082	31599	26000	13000

	2	3	4	5	6	7
		Production of Seed (in tonnes)	39.91	39.41	38.21	42.88
		Production of planting material (in lakh)	10.84	6.66	20.74	0.71
		Live-stock strains and fingerlings (in lakh)	9	9	0.001	0
2.	Jammu and Kashmir	On-farm trials and demonstrations (Number)	3915	2965	3104	2919
		Farmers and extension personnel trained (Number)	20730	23238	31000	15000
		Production of Seed (in tonnes)	66.83	119.72	59.11	17.15
		Production of planting material (in lakh)	1.53	0.93	1.77	0.09
		Live-stock strains and fingerlings (in lakh)	1482	2240	0.01	0
3.	Jharkhand	On-farm trials and demonstrations (Number)	4093	5391	4029	7562
		Farmers and extension personnel trained (Number)	41354	51197	58282	41365
		Production of Seed (in tonnes)	1388.7	1057.6	1948	1426
		Production of planting material (in lakh)	2.98	1.46	2.189	5.1
		Live-stock strains and fingerlings (in lakh)	0.0014	0.23172	0.157	0.09
4.	Karnataka	On-farm trials and demonstrations (number)	6905	5914	4248	3186
		Farmers and Extension personnel trained (number)	166670	127793	65410	26492
		Production of seed (in tonnes)	454.064	363.95	219.8	175.92
		Production of Planting materials (in lakh)	6.98	9.99	5.28	6.23
		Live stock strains and fingerlings (in lakh)	0.18	0.31	0.15	0.18
5.	Kerala	On-farm trials and demonstrations (number)	2242	2697	1614	1563

1	2	3	4	5	6	7
		Farmers and Extension personnel	81403	76454	33089	21197
		trained (number)				
		Production of seed (in tonnes)	27.76	13.02	12.82	1.94
		Production of Planting materials (in lakh)	5.57	7.8	4.89	7.01
		Live stock strains and fingerlings (in lakh)	0.25	0.36	0.45	0.2
16.	Lakshadweep	On-farm trials and demonstrations (number)	65	20	0	0
		Farmers and Extension personnel trained (number)	13645	0	0	0
		Production of seed (in tonnes)	0.049	0	0	0
		Production of Planting materials (in lakh)	0.16	0	0	0
		Live stock strains and fingerlings (in lakh)	0.002	0	0	0
17.	Madhya Pradesh	On-farm trials and demonstrations (Number)	7476	16137	44921	5837
		Farmers and extension personnel trained (Number)	145040	83531	129305	60858
		Production of Seed (in tonnes)	1497	1278	900.56	998.25
		Production of planting material (in lakh)	1.93	15.70	11.35	5.57
		Live-stock strains and	0.09	0.18	0.27	5.77
		fingerlings (in lakh)				
18.	Maharashtra	On-farm trials and demonstrations (Number)	8674	9286	12971	4168
		Farmers and extension personnel trained (Number)	106637	122337	108789	61774
		Production of Seed (in tonnes)	220	410	30.16	60.24
		Production of planting material (in lakh)	12.99	12.87	20.95	6.42

1	2	3	4	5	6	7
		Live-stock strains and	0.75	1.91	1.11	0.58
		fingerlings (in lakh)				
19.	Manipur	On-farm trials and demonstrations (Number)	1759	945	1554	1188
		Farmers and extension personnel trained (Number)	15336	8416	25452	6697
		Production of Seed (in tonnes)	212.85	209.02	127.5	52
		Production of planting material (in lakh)	1.46	0.84	1.54	0.62
		Live-stock strains and fingerlings (in lakh)	0.27	0.14	0.85	0.28
20.	Meghalaya	On-farm trials and demonstrations (Number)	853	525	761	660
		Farmers and extension personnel trained (Number)	8520	4120	14587	3645
		Production of Seed (in tonnes)	90.65	91.90	25.25	14
		Production of planting material (in lakh)	0.89	0.26	0.86	0.33
		Live-stock strains and fingerlings (in lakh)	0.17	0.06	0.39	0.16
21.	Mizoram	On-farm trials and demonstrations (Number)	1619	840	1346	1056
		Farmers and extension personnel trained (Number)	14316	5092	23097	5832
		Production of Seed (in tonnes)	143.85	135.24	106	28
		Production of planting material (in lakh)	0.90	0.41	1.4	0.57
		Live-stock strains and fingerlings (in lakh)	0.21	0.13	0.75	0.24
22.	Nagaland	On-farm trials and demonstrations (Number)	1678	967	1607	1190
		Farmers and extension personnel trained (Number)	14652	7416	24436	6561

	2	3	4	5	6	7
		Production of Seed (in tonnes)	269.65	259.02	147.4	44.13
		Production of planting material (in lakh)	1.70	0.56	1.58	0.67
		Live-stock strains and fingerlings (in lakh)	0.24	0.15	0.87	0.3
23.	Odisha	On-farm trials and demonstrations (Number)	9408	7460	11715	4711
		Farmers and extension personnel trained (Number)	62417	55210	46967	27771
		Production of Seed (in tonnes)	303	499	426.09	2457.12
		Production of planting material (in lakh)	16	8.41	23.57	12.88
		Live-stock strains and fingerlings (in lakh)	0.8	4.0	5.02	5.54
4.	Pudducherry	On-farm trials and demonstrations (number)	190	232	114	44
		Farmers and Extension personnel trained (number)	5075	6319	817	1338
		Production of seed (in tonnes)	16.359	73.434	72	24.47
		Production of Planting materials (in lakh)	1.28	16.05	0.18	0.8
		Live stock strains and fingerlings (in lakh)	0.29	0.49	0.45	0.05
.5.	Punjab	On-farm trials and demonstrations (Number)	2742	1810	3285	959
		Farmers and extension personnel trained (Number)	29517	27145	41000	19000
		Production of Seed (in tonnes)	751.79	2962.85	893.75	145.36
		Production of planting material (in lakh)	0.53	0.19	0.56	0.15
		Live-stock strains and fingerlings (in lakh)	190	93	0.004	0
6.	Rajasthan	On-farm trials and demonstrations (Number)	7398	9030	13777	7263

1	2	3	4	5	6	7
		Farmers and extension personnel trained (Number)	93177	88037	98504	49164
		Production of Seed (in tonnes)	469.06	631.83	672.02	227.05
		Production of planting material (in lakh)	4.55	7.43	15.17	4.96
		Live-stock strains and fingerlings (in lakh)	99.05	28.01	0.00582	3
27.	Sikkim	On-farm trials and demonstrations (Number)	697	398	581	525
		Farmers and extension personnel trained (Number)	6316	2721	11468	2718
		Production of Seed (in tonnes)	86.46	74.12	33.4	13.1
		Production of planting material (in lakh)	0.46	0.18	0.69	0.24
		Live-stock strains and fingerlings (in lakh)	0.09	0.04	0.34	0.12
28.	Tamil Nadu	On-farm trials and demonstrations (number)	5382	5245	4551	4328
		Farmers and Extension personnel trained (number)	221905	213221	63957	38968
		Production of seed (in tonnes)	1201.458	116.79	172.2	71.53
		Production of Planting materials (in lakh)	35.21	27.53	17.97	6.31
		Live stock strains and fingerlings (in lakh)	0.44	0.93	0.32	1.47
29.	Telangana	On-farm trials and demonstrations (number)	0.00	0.00	2595	1217
		Farmers and Extension personnel trained (number)	0.00	0.00	15844	7908
		Production of seed (in tonnes)	0.00	0.00	17.11	18.66
		Production of Planting materials (in lakh)	0.00	0.00	3.68	2.08
		Live stock strains and fingerlings (in lakh)	0.00	0.00	1.93	0.25

1	2	3	4	5	6	7
30.	Tripura	On-farm trials and demonstrations (Number)	892	420	601	534
		Farmers and extension personnel trained (Number)	7309	4395	11860	3116
		Production of Seed (in tonnes)	153.90	115.12	39.2	31
		Production of planting material (in lakh)	0.76	0.21	0.71	0.28
		Live-stock strains and fingerlings (in lakh)	0.12	0.05	0.39	0.14
31.	Uttar Pradesh	On-farm trials and demonstrations (Number)	19436	20354	16639	14392
		Farmers and extension personnel trained (Number)	162987	162867	156022	111719
		Production of Seed (in tonnes)	2264.5	2037.4	1460.13	2435.2
		Production of planting material (in lakh)	20.88	17.83	13.63	1.51
		Live-stock strains and fingerlings (in lakh)	12.83	52.39	41.36	16.38
32.	Uttarakhand	On-farm trials and demonstrations (Number)	4298	6836	4364	3952
		Farmers and extension personnel trained (Number)	19971	20351	19700	17968
		Production of Seed (in tonnes)	856.8	477.4	479.33	701.2
		Production of planting material (in lakh)	20.84	10.26	98.42	2.98
		Live-stock strains and fingerlings (in lakh)	0.02	0.002	0.002	4.3
33.	West Bengal	On-farm trials and demonstrations (Number)	2684	6115	5504	8578
		Farmers and extension personnel trained (Number)	37603	44529	49551	36078
		Production of Seed (in tonnes)	4091.1	1238.7	5392	2948

1	2	3	4	5	6	7
		Production of planting material (in lakh)	5.84	5.61	13.512	6.16
		Live-stock strains and fingerlings (in lakh)	47.9	31.2	12.334	8326
34.	Total	On-farm trials and demonstrations (Number)	125058	139470	176700	115419
		Farmers and extension personnel trained (Number)	1834063	1625331	1544847	825196
		Production of Seed (in tonnes)	18863.4	17720.3	14742.74	15300.81
		Production of planting material (in lakh)	205.215	191.71	323.52	93.43
		Live-stock strains and fingerlings (in lakh)	125811	84163.7	74.66995	8370.7

ANNEXURE XII

STATE-WISE DETAILS OF SANCTIONED STRENGTH, IN POSITION AND VACANCY DETAILS OF ADMINISTRATIVE POSTS

Sl.No.	Name of the Institute	Sanctioned Strength of Administrative posts	In Position	Vacant Administrative posts
1	2	3	4	5
Andhra	a Pradesh			
1.	Central Tobacco Research Institute, Rajahmundry	72	49	23
2.	Directorate of Oil Palm Research, Near Jawahar Navodaya Vidyalaya, Pedavegi	15	11	04
	Total	87	60	27
Aruna	chal Pradesh			
3.	National Research Centre on Yak, Dirang	14	08	06
	Total	14	08	06
Assam				
4.	National Research Centre on Pig, Rar Guwahati	ni, 11	07	04
	Total	11	07	04
Bihar				
5.	ICAR Research Complex for Eastern Region, Patna	35	20	15
6.	National Research Centre for Litchi, Muzaffarpur	11	08	03
	Total	46	28	18
Chhatt	tisgarh			
7.	National Institute of Biotic Stress Management, Raipur	02	01	01
	Total	02	01	01

1	2	3	4	5
Delhi				
8.	Indian Agricultural Research Institute, New Delhi	441	340	101
9.	Indian Agricultural Statistics Research Institute, New Delhi	84	72	12
10.	National Bureau of Plant Genetic Resources, New Delhi	70	52	17
11.	National Centre for Agricultural Economics & Policy Research, New Delhi	12	10	02
12.	National Centre for Integrated Pest Management, New Delhi	24	20	04
13.	National Research Centre on Plant Biotechnology, New Delhi	16	09	07
14.	ICAR-Headquarters	727	578	149
15.	Indian Institute of Maize Research, New Delhi	13	06	07
	Total	1387	1088	299
Goa				
16.	ICAR Research Complex for Goa, Goa	21	18	03
	Total	21	18	03
Gujara	t			
17.	Directorate of Groundnut Research, Junagadh	16	12	04
18.	Directorate of Medicinal & Aromatic Plants Research, Anand	12	10	02
	Total	28	22	06
Haryar	na			
19.	Central Institute for Research on Buffaloes, Hisar	20	14	06
20.	Central Soil Salinity Research Institute, Karnal	58	42	16

1	2	3	4	5
21.	Directorate of Wheat Research, Karnal	25	19	06
22.	National Bureau of Animal Genetic Resources, Karnal	21	19	02
23.	National Dairy Research Institute, Karnal	157	140	17
24.	National Research Centre for Equines, Hisar	14	11	03
	Total	295	245	50
Himad	chal Pradesh			
25.	Central Potato Research Institute, Shimla	100	86	14
26.	Directorate of Mushroom Research, Solan	14	12	02
	Total	114	98	16
Jhark	hand			
27.	Indian Institute of Agricultural Biotechnology, Ranchi	00	00	00
28.	Indian Institute of Natural Resin and Gums, Ranchi	33	21	12
	Total	33	21	12
Jamm	u and Kashmir			
29.	Central Institute of Temperate Horticulture, Srinagar	15	10	05
	Total	15	10	05
Karna	taka			
30.	Directorate of Cashew Research, Puttur	15	10	05
31.	Indian Institute of Horticultural Research, Bangalore	75	57	18
32.	National Bureau of Agriculturally Important Insects, Bengaluru	11	11	00

1	2	3	4	5
33.	National Institute of Animal Nutrition & Physiology, Bengaluru	17	15	02
34.	National Institute of Veterinary Epidemiology and Disease Informatics (NIVEDI)	13	10	03
35.	Zonal Project Directorate Zone- VIII, Bengaluru	08	05	03
	Total	139	108	31
Kerala	a			
36.	Central Institute of Fisheries Technology, Cochin	80	62	18
37.	Central Marine Fisheries Research Institute, Kochi	139	108	31
38.	Central Plantation Crops Research Institute, Kasargod	93	76	19
39.	Central Tuber Crops Research Institute, Thiruvananthapuram	31	25	06
40.	Indian Institute of Spices Research, Kozhikode	24	22	02
	Total	367	291	76
Madhy	ya Pradesh			
41.	Central Institute of Agricultural Engineering, Bhopal	74	65	09
42.	Directorate of Soybean Research, Indore	12	10	02
43.	Directorate of Weed Science Research, Jabalpur	13	09	04
44.	Indian Institute of Soil Science, Bhopal	28	20	08
45.	Zonal Project Directorate Zone-VII, Jabalpur	08	03	05
	Total	135	107	28

1	2	3	4	5
Mahara	ashtra			
46.	Central Institute for Cotton Research, Nagpur	48	35	13
47.	Central Institute for Research on Cotton Technology, Mumbai	55	32	23
48.	Central Institute of Fisheries Education, Mumbai	61	46	15
49.	Directorate of Floricultural Research, Pune	10	08	02
50.	Directorate of Onion and Garlic Research, Pune	11	10	01
51.	National Bureau of Soil Survey & Land Use Planning, Nagpur	67	53	14
52.	National Institute of Abiotic Stress Management, Baramati	21	07	14
53.	National Research Centre for Citrus, Nagpur	11	10	01
54.	National Research Centre for Grapes, Pune	13	10	03
55.	National Research Centre on Pomegranate, Solapur	11	06	05
	Total	308	217	91
Megha	laya			
56.	ICAR Res. Complex for NEH Region, Barapani	125	104	21
57.	Zonal Project Directorate Zone-III, Barapani	07	04	03
	Total	132	108	24
Nagala	nd			
58.	National Research Centre on Mithun, Jharnapani	15	10	05
	Total	15	10	05

1	2	3	4	5
Odish	na			
59.	Central Institute of Freshwater Aquaculture, Bhubaneswar	35	25	10
60.	Central Rice Research Institute, Cuttack	94	73	20
61.	Directorate of Research on Women in Agriculture, Bhubaneswar	12	07	05
62.	Directorate of Water Management, Bhubaneswar	14	11	03
	Total	155	116	39
Punja	ab			
63.	Central Institute of Post Harvest Engineering & Technology, Ludhiana	22	22	00
64.	Zonal Project Directorate Zone-I, Ludhiana	08	06	02
	Total	30	28	02
Rajas	than			
65.	Central Arid Zone Research Institute, Jodhpur	90	69	21
66.	Central Institute for Arid Horticulture, Bikaner	23	20	03
67.	Central Sheep & Wool Research Institute, Avikanagar	81	53	28
68.	Directorate of Rapeseed Mustard Research, Bharatpur	14	08	06
69.	National Research Centre on Camel, Bikaner	12	9	03
70.	NRC on Seed Spices, Ajmer	11	08	03
71.	Zonal Project Directorate Zone-VI, Jodhpur	08	04	04
	Total	239	171	68
Sikkiı	m			
72.	National Research Centre on Orchids, Gangtok	10	07	03
	Total	10	07	03

1	2	3	4	5
Tamil	Nadu			
73.	Central Institute of Brackishwater Aquaculture, Chennai	26	23	03
74.	Sugarcane Breeding Institute, Coimbatore	40	28	12
75.	National Research Centre for Banana, Tiruchirappalli	12	10	02
	Total	78	61	17
Telan	gana			
76.	Central Research Institute for Dryland Agriculture, Hyderabad	50	33	17
77.	Directorate of Oilseeds Research, Hyderabad	29	24	05
78.	Directorate of Rice Research, Hyderabad	32	27	05
79.	Directorate of Sorghum Research, Hyderabad	21	15	06
30.	National Academy of Agricultural Research Management, Hyderabad	54	36	18
31.	National Research Centre on Meat, Hyderabad	14	09	05
32.	Directorate of Poultry, Hyderabad	14	11	03
83.	Zonal Project Directorate Zone-V, Hyderabad	08	06	02
	Total	222	161	61
Jttar	Pradesh			
34.	Central Avian Research Institute, Izatnagar	30	28	02
35.	Central Institute for Research on Goats, Mathura	28	32	-04
36.	Central Institute for Sub-tropical Horticulture, Lucknow	24	19	05
37.	Indian Grassland & Fodder Research Institute, Jhansi	72	50	22

1	2	3	4	5
88.	Indian Institute of Pulses Research, Kanpur	27	24	03
89.	Indian Institute of Sugarcane Research, Lucknow	48	41	07
90.	Indian Institute of Vegetable Research, Varanasi	20	11	09
91.	Indian Veterinary Research Institute, Izatnagar	313	273	40
92.	National Bureau of Fish Genetic Resources, Lucknow	21	18	03
93.	National Research Centre for Agroforestry, Jhansi	14	13	01
94.	Project Directorate for Farming System Research, Modipuram	16	16	02
95.	Project Directorate on Cattle, Meerut	14	12	02
96.	Zonal Project Directorate Zone-IV, Kanpur	09	07	02
97.	Directorate of Seed Research, Mau	15	06	09
98.	National Bureau of Agriculturally Important Micro-organisms, Mau Nath Bhanjan	11	11	00
	Total	662	561	101
ttara	khand			
99.	Central Soil & Water Conservation Research & Training Institute, Dehradun	83	60	23
00.	Directorate of Coldwater Fisheries Research, Bhimtal	13	11	02
01.	Project Directorate on Foot and Mouth Disease, Mukteshwar	09	05	04
02.	Vivekanand Parvatiya Krishi Anusandhan Sansthan, Almora	24	15	09
	Total	129	91	38

1	2	3	4	5
West	Bengal			
103.	Central Inland Fisheries Research Institute, Kolkata	66	62	04
104.	Central Research Institute for Jute & Allied Fibres, Kolkata	62	33	29
105.	National Institute of Research on Jute & Allied Fibre Technology, Kolkata	36	24	12
106.	Zonal Project Directorate Zone-II, Kolkata	08	06	02
	Total	172	125	47
Union	Territories			
Andam	nan & Nicobar Islands			
107.	ICAR Central Agricultural Research Institute, Port Blair	27	22	05
	Total	27	22	05
	Grand Total	4873	3790	1083

LIST OF COMMERCIALLY VIABLE TECHNOLOGY, MACHINERY AND VARIETIES OF SEEDS/PLANTS ETC. DEVELOPED BY ALL INSTITUTES OF ICAR

Sl.N	o. Technology	Institute
1	2	3
	Crop Science	
1.	Antigen and Antibody expression constructs for Serodiagnosis of plant viruses	IARI
2.	Nano-Fungicide	Indian Statistical Institute, Kolkata
3.	Hexaplex PCR targeting six marker genes (nptII, aadA, bar, hpt, pat and uidA)	ICAR - NBPGR
4.	Duplex TaqMan real-time PCR targeting P-35S and T-nos	ICAR - NBPGR
5.	Visual Loop-mediated Isothermal Amplification (LAMP)-based technology targeting eight transgenic elements (P-35S, T-nos, aadA, nptII, uidA, cry1Ac, cry2Ab2 and cp4-epsps)	ICAR - NBPGR
6.	Real-time Loop-mediated Isothermal Amplification (LAMP)-based technology targeting eight transgenic elements (P-35S, T-nos, aadA, nptII, uidA, cry1Ac, cry2Ab2 and cp4-epsps)	ICAR - NBPGR
7.	TaqMan real-time PCR-based ready-to-use multi-target system covering 47 targets for screening.	ICAR - NBPGR
8.	Capsicum Salsa	IARI
	Horticultural Science	
1.	Arka plant growth enhancer and yield promoter	IIHR
2.	Arka organic formulation of plant growth booster	IIHR

1	2	3
3.	Salt tolerant bio-growth enhancer for increasing productivity of Agri-Horti crops	BITS, Goa & IIT Delhi
4.	IIHR-Tricoderma viride-1.5% W.P.	IIHR
5.	IIHR-Pseudomonas fluorenscens-1% W.P.	IIHR
6.	IIHR-Paecilomyces lilacinus-1% W.P.	IIHR
7.	IIHR-Tricoderma harzianum-1% W.P.	IIHR
8.	IIHR-Pochonia chlamydosporia-1% W.P.	IIHR
9.	Modular vector for one-step assembly of Intron containing hairpin RNA for High Throuput gene silencing in plants	IIHR
10.	IIHR-Bacillus subtilis-1% W.P.	IIHR
11.	IIHR-Pseudomonas fluorenscens-1% A.S. (Liquid Formulations)	IIHR
12.	IIHR-Bacillus subtilis-1% A.S. (Liquid Formulations)	IIHR
13.	Coconut chips	CPCRI
14.	Process of production of snow ball tendernut	CPCRI
15.	Mass multiplication of Arecanut by Tissue Culture	CPCRI
16.	Virgin coconut oil	CPCRI
17.	Coconut Palm Sugar	CPCRI
	Natural Resource Management	
1.	Low Energy Water Application (LEWA) DEVICE	ICAR-RCER, Patna
2.	Viral bio-pesticide Achaea janatagranulovirus (AjGV)	CRIDA
3.	CRIDA Precision planter cum Herbicide applicator	CRIDA
4.	Insect Parasitoid and Predator Collection device	CRIDA
5.	Nanotechnology for enhanced utilization of native phosphorus by plants and higher moisture retention in arid soils	CAZRI

1	2	3
6.	Nano-nutrients for higher crop production	CAZRI
7.	Nano-induced polysaccharide powder	CAZRI
8.	A process for producing tuity-fruity from chow-chow	ICAR-RCNEHR
9.	Method for producing an effective vaccine against salmonellosis	ICAR-RCNEHR
10.	Design and Development of Rubber dams for Watersheds	DWM
11.	Abiotic Stress Tolerant Biocontrol Agents	NBAII, Bangalore, Karnataka
	Agricultural Engineering	
1.	A cross flow Flexible Membrane Filtration assembly for Low volume Food and Biotech Processing	IIT, DELHI
2.	Technology for Cashew Cutting and Peeling	CEPC Labrotary and Technical Division, Kollam
3.	Browning free custard apple pulp extraction Technology	MPUAT, Udaipur
4.	Chemical retting of coconut fibre	INRAAFT, Kolkata
5.	Nanocellulose production technology	CIRCOT
6.	Pollution preventing system	CEPC Labrotary and Technical Division, Kollam
7.	A value chain on Castor and its industrial products	Mustard Research Station SDAU, Dantiwada
8.	Alvel Omega-3 oil/Alvel Omega-3 soft gel	Centre for Innovation in Nutrition Health Disease, Pune
9.	Banana Pseudostem candy	NAIP (Navsari Agriculture University)

1	2	3
10.	Cellulase, Pectinase and Annase Production from Cashew By-products	NAIP (CEPC Laboratory and Technical Division, Kollam)
I.	Vegetable nursery machinery	
11.	Root media sieving and bag filling unit	IIHR
12.	Rooting media mixer	IIHR
13.	Vacuum seeder	IIHR
14.	Rotary dibbler	IIHR
15.	Rooting media sieving, mixing and bag filling unit-high capacity	IIHR
II.	Sowing and Transplanting machinery	
16.	Animal drawn onion seeder	IIHR
17.	Manual onion seeder	IIHR
18.	Tractor drawn seed cum fertilizer drill for onion	IIHR
19.	Tractor operated raised bed former cum transplanter	IIHR
20.	Tractor operated raised bed crop weeder	IIHR
III.	Harvesters	
21.	Mango	IIHR
22.	Sapota	IIHR
23.	Lime	IIHR
24.	Guava	IIHR
25.	Orange	IIHR
26.	Tractor operated hydraulic platform for harvesting, spraying and pruning	IIHR
IV.	Raw mango Processing machinery	
27.	Size grader	IIHR
28.	Raw mango peeler	IIHR
29.	Raw mango slicer	IIHR

1	2	3
30.	Raw mango cube cutter	IIHR
31.	Hot water treatment plant	IIHR
32.	Garlic machinery—Garlic bulb breaker	IIHR
33.	Garlic peeler	IIHR
٧.	Mushroom spawn and cultivation machinery	
34.	Grain cleaner	IIHR
35.	Grain boiler	IIHR
36.	Boiled grain and chalk powder mixer	IIHR
37.	Bag filler	IIHR
38.	Spawn inoculators	IIHR
39.	Solar energy based paddy straw pasteurizer	IIHR
40.	Modified solar energy based autoclave for sterilization of spawn and paddy straw	IIHR
VI.	Seed extractor	
41.	Onion seed extractor	IIHR
42.	Technical Know how of Aluertic Acid	IIRNG
43.	Green chilli powder	ICAR-CIPHET
44.	Dried Onion flakes and Powder	ICAR-CIPHET
	Animal Science	
1.	Indigenous Progesterone impregnated Intra-Vaginal sponges for estrous synchronization in sheep	CSWRI
2.	Area specific mineral-mixture for augmenting reproduction and production in sheep	NIANP
3.	Area specific mineral mixture for Karnataka	NIANP
4.	Mineral mixture of small ruminants	NIANP
5.	Use of areca sheath as a part of TMR	NIANP
6.	A process for producing xylo-oligosaccharides from finger millet straw	NIANP
7.	Methane reduction using plant secondary compounds	NIANP

1	2	3
	Δ	3
8.	Indirect ELISA for detection antibrucella antibodies in Bovines	PDADMAS
9.	Avidin Biotin ELISA for detection of IBR Antibodies in Bovines	PDADMAS
10.	Leptospira staining kit	PDADMAS
11.	Area specific mineral mixture of Mithun	NRC on Mithun
12.	Low cost high nutritious feed block for Mithun	NRC on Mithun
13.	A new colour based method for detection of detergent in milk	NDRI, Karnal
14.	A novel micro technique and media for selective enumeration and detection of enterococci in milk	NDRI, Karnal
15.	Low cost technology for prevention and treatment of subclinical and clinical mastitis in Bovines	IVRI, Izatnagar
16.	Mineral based technology for Estrus Induction and Synchronization in Bovines for increasing milk production	IVRI, Izatnagar
17.	Omega-3 enriched fee mix and Omega-3 chicken	Centre for Innovation in Nutrition Health Disease
18.	Parentage verification kits for Goats and other Livestock species	NBAGR, Karnal
19.	PCR based DNA Test for differentation of Cattle and Buffalo meat and milk	NBAGR, Karnal
20.	Monitoring Aflatoxin in Milk	NDRI, Karnal
21.	Two stage Enzyme Assay for detection of L. Monocytogenes in Milk	NDRI, Karnal
22.	Low cost multiplication technology at salt tolerant bi-growth enhancers (Basills, Pseudomonas & Trichoderma) for increasing productivity of agri-horti crops in normal and sodic soils	IVRI
23.	PCR based quality estimation technology for purity of pashmina wool	CSWRI
24.	Bajra lassi, Iron-fortified biscuits and pearl millet & milk solid based nutrimix	NDRI

<u> </u>	Z		<u> </u>
	Fish	eries	
1.	Bio stimulator for ammonia detoxification in coastal aquaculture systems		CIBA
2.	CIBA Bhetkiahar		CIBA
3.	Broodstock Development, Indiand larval production of Cobi (Rachycentron canadum)	_	CMFRI
4.	Breeding of Silver Pompano, Trachynotusblochii		CMFRI
5.	Immunodot technology for de WSSV (White Spot Syndrome		CIBA
6.	Spot Agglutination kit for Fish Edwardsiellosis	h Disease	CIFA
7.	Macrobrachiumrosenbergii Nodiagnostic kit	davirus (MrNV)	CIFA
8.	Flow-through Mahseer Hatchery (Aquaculture of Golden Mahseer)		DCFR
9.	Validation of a Brood Stock Diet (CIFA BROOD)		CIFA
10.	Cadalmin™ Green Mussel Extract (Cadalmin™ GMe for use against Joint Pain and Arthritis)		CMFRI
11.	Fish Kure		CIFT
12.	Ready-to-serve Fish Curry in	Retort Pouch	CIFT
	State Agricultu	ıral Universities	
1.	Foot rot vaccine for sheep	Sher-e-Kashmir Agricultural Science of Kashmir	University of ce and Technology
2.	Improvisation of traditional charkha	Sher-e-Kashmir University Agricultural Science and Technolo of Kashmir	
3.	Organic liquid fertilizer from Banana Pseudostem sap	Navsari Agricult	ural University
4.	Blue Tongue Vaccine	TANVAUS	
5.	c-306 Wheat Variety	PAU, Ludhiana	

ICAR-INDIAN INSTITUTE OF VEGETABLE RESEARCH, VARANASI

	· · · · · · · · · · · · · · · · · · ·
SI.No.	Variety
1	2
1.	Tomato - Kashi Vishesh
2.	Tomato - Kashi Anupam
3.	Tomato - Kashi Abhiman
4.	Brinjal - Kashi Sandesh
5.	Brinjal - Kashi Taru
6.	Chilli - Kashi Amol
7.	Chilli - Kashi Gaurav
8.	Chilli - Kashi Sinduri
9.	Chilli - Kashi Surkh
10.	Okra - Kashi Pragati
11.	Okra - Kashi Vibhuti
12.	Okra - Kashi Kranti
13.	Okra - Kashi Satdhari
14.	Okra - Kashi Bairo
15.	Cauliflower - Kashi Kunwari
16.	Vegetable Cow pea - Kashi Kanchan
17.	Vegetable Cow pea - Kashi Unnati
18.	Vegetable Cow pea - Kashi Nidhi
19.	Vegetable Pea - Kashi Nandini
20.	Vegetable Pea - Kashi Udai
21.	Vegetable Pea - Kashi Shakti
22.	Vegetable Pea - Kashi Samridhi
23.	French bean - Kashi Param
24.	Dolichos bean - Kashi Haritima

1	2	
25.	Ash Gourd - Kashi Dhawal	
26.	Ash Gourd - Kashi Surbhi	
27.	Sponge Gourd - Kashi Divya	
28.	Pointed Gourd - Kashi Alankar	
29.	Bottle Gourd - Kashi Ganga	
30.	Bottle Gourd - Kashi Bahar	
31.	Pumpkin - Kashi Harit	
32.	Muskmelon - Kashi Madhu	
33.	Radish - Kashi Shweta	
34.	Radish - Kashi Hans	

ICAR-CENTRAL POTATO RESEARCH INSTITUTE, SHIMLA

SI.No.	Name (Table varieties)	
1	2	
1.	Kufri Kisan	
2.	Kufri Kuber	
3.	Kufri Kumar	
4.	Kufri Kundan	
5.	Kufri Red	
6.	Kufri Safed	
7.	Kufri Neela	
8.	Kufri Sindhuri	
9.	Kufri Alankar	
10.	Kufri Chamatkar	
11.	Kufri Chandramukhi	
12.	Kufri Jeevan	
13.	Kufri Jyoti	
14.	Kufri Khasigaro	
15.	Kufri Naveen	
16.	Kufri Neelamani	
17.	Kufri Neelima	
18.	Kufri Sheetman	
19.	Kufri Muthu	
20.	Kufri Lauvkar	
21.	Kufri Dewa	
22.	Kufri Badshah	
23.	Kufri Bahar	
24.	Kufri Lalima	

1	2
25.	Kufri Sherpa
26.	Kufri Swarna
27.	Kufri Megha
28.	Kufri Jawahar
29.	Kufri Sutlej
30.	Kufri Ashoka
31.	Kufri Pukhraj
32.	Kufri Giriraj
33.	Kufri Anand
34.	Kufri Kanchan
35.	Kufri Arun
36.	Kufri Pushkar
37.	Kufri Shailja
38.	Kufri Surya
39.	Kufri Himalini
40.	Kufri Sadabahar
41.	Kufri Girdhari
42.	Kufri Khyati
43.	Kufri Garima
44.	Kufri Gaurav
45.	Kufri Lalit.
	Processing varieties
1.	Kufri Chipsona-1
2.	Kufri Chipsona-2
3.	Kufri Chipsona-3
4.	Kufri Chipsona-4
5.	Kufri Himsona
6.	Kufri Frysona

ICAR-Sugarcane Breeding Institute, Coimbatore

	,
SI.No.	Variety
1	2
1.	Sugarcane: Co 86032 (Nayana)
2.	Sugarcane: Co 86249 (BHAVANI)
3.	Sugarcane: Co 94012
4.	Sugarcane: Co 2001-13 (Sulabh)
5.	Sugarcane: Co 2001-15
6.	Sugarcane: Co 99004 (Damodar)
7.	Sugarcane: Co 0403
8.	Sugarcane: Co 0238 (KARAN- 4)
9.	Sugarcane: Co 0118 (KARAN 2)
10.	Sugarcane: Co 0237 (Karan-8)
11.	Sugarcane: KARAN 9 (Co 05011)
12.	Sugarcane: Co 06027
13.	Sugarcane: Co 06030
14.	Sugarcane: Co 0232
15.	Sugarcane: Co 0233
I	CAR-National Research Centre for Grapes, Pune
1.	Grapes - Manjri Naveen
2.	Grapes - Medika
3.	Grapes - Kishmish Rozavis White (KR-White)
IC	AR-Central Institute of Cotton Research, Nagpur
1.	Cotton - Suvin
2.	Cotton - LRA 5166

3.

Cotton - MCU 5 VT

1	2			
4.	Cotton - Supriya			
5.	Cotton - Anjali			
6.	Cotton - Surabhi			
7.	Cotton - Suraj			
8.	Cotton - Sumangala			
9.	Cotton - CNHO 12 (Saraswati)			
10.	Cotton - CICR 2			
11.	Cotton - CISA 310			
12.	Cotton - CISA 614			
13.	Cotton - CAN 1003			
ICAR-Central Arid Zone Research Institute, Jodhpur				
1.	CARI Moth 2 (CZM- 45)			
ICAR-Indian Institute of Pulses Research, Kanpur				
1.	DCP 92-3 (Chickpea)			
2.	IPF 99-25 (Adarsh) : Fieldpea			
3.	IPFD 99-13 (Vikas) : Fieldpea			
4.	IPFD 1-10 (Prakash) : Fieldpea			
5.	Amber (IIPR 96-4) : Rajmash			
6.	Utkarsh (IPR 98-5) : Rajmash			
7.	Sheri (DPL 62) : Lentil			
8.	Noori (IPL-81) : Lentil			
9.	Samrat (PDM-139) : Mungbean			
10.	Meha (IPM 99-125) : Mungbean			
11.	IPU 94-1 (Uttara) : Urdbean			
ICAR- Ir	ndian Institute of Wheat and Barley Research, Karnal			
1.	Wheat - BBW 88			
2.	Barley - DWRUB 52			

ICAR-National Research Centre for Banana, Trichi

1. Banana - Udhyam

ICAR-Directorate of Medicinal and Aromatic Plants Research, Anand

1. Mandukaparni - Vallabh Medha

ICAR-Directorate of Soyabean Research, Indore

- 1. Soyabean NRC 86
- 2. Soyabean NRC 77
- 3. Soyabean JS 20-29
- 4. Soyabean JS 20-34

ICAR-Indian Institute of Maize Research, New Delhi

1. Maize - Orange Sweet Corn

ICAR-Directorate of Cashew Research, Puttur

- 1. Cashew NRCC Selection 2
- 2. Cashew Bhaskara

ICAR-Central Institute of Sub-Tropical Horticulture, Lucknow

- 1. CITH Walnut -1
- 2. CITH Walnut -2
- 3. CITH Walnut -3
- 4. CITH Walnut -4
- 5. CITH Walnut -5
- 6. CITH Apricot -1
- 7. CITH Apricot -2
- 8. CITH Apricot -3

ICAR- Central Agroforestry Research Institute, Jhansi

- 1. Dalbergia Sisso PT 6
- 2. Dalbergia Sisso PT 2

1 2

ICAR-Central Plantation Crops Research Institute, Kasargod

- 1. Coconut Chandrakalpa
- 2. Coconut Kera Chandra
- 3. Coconut Chowghat Oranga Dwarf
- 4. Coconut Kalpa Pratibha
- 5. Coconut Kalpa Dhenu
- 6. Coconut Kalpa Mitra
- 7. Coconut Kalparaksha
- 8. Coconut Kalpasree
- 9. Coconut Kalpatharu
- 10. Coconut Kalpa Surya
- 11. Coconut Kalpa Jyoti
- 12. Coconut Kalpa Haritha
- 13. Arecanut Mangala
- 14. Arecanut Sumangala
- 15. Arecanut Sreemangala
- 16. Arecanut Mohitnagar
- 17. Arecanut Swarnamangala
- 18. Arecanut Kahikuchi
- 19. Arecanut Madhuramangala
- 20. Arecanut Nalbari
- 21. Cocoa VTLCC-1
- 22. Cocoa VLTC-1
- 23. Cocoa VLTC-57

ICAR-Central Island Agricultural Research Institute, Port Blair

- 1. Rice: CARI DHAN 1
- 2. Rice: CARI DHAN 2
- 3. Rice: CARI DHAN 3

1	2			
4.	Rice: CARI DHAN - 4			
5.	Rice: CARI DHAN - 5			
6.	Rice: CARI DHAN - 6			
7.	Rice: CARI DHAN - 7			
8.	Brinjal - CARI Brinjal - 1			
9.	Indian Spinach - CARI Poi Selection			
10.	Coconut - CARI-C-1			
11.	Coconut - CARI-C-2			
12.	Coconut - CARI-C-3			
13.	Coconut - CARI-C-4			
14.	Sweet Potato - SP1			
15.	Sweet Potato - SP2			
16.	Greater Yam: CARI DA 1			
17.	Burma Dhaniya: Broad Dhaniya			
ICAR-Directorate of Rice Research, Hyderabad				
1.	Rice: DRRH - 2			
2.	Rice: DRRH - 3			
3.	Rice: Improved Sambha Mahsuri			
4.	Rice: Akshayadhan			
5.	Rice: DRR Dhan 38			
6.	Rice: Jarava			
7.	Rice: Sampada			
8.	Rice: Sugandhamati			
9.	Rice: Varadhan			
ICAR-National Rice Research Institute, Cuttack				
1.	Padma			
2.	Bala			

1	2
3.	Kiran
4.	Krishna
5.	Ratna
6.	Vijaya
7.	Saket-4
8.	Jayanti
9.	Kalinga-I
10.	Kalinga-II
11.	Shakti
12.	Supriya
13.	Vani
14.	Naikichli
15.	Anamika
16.	Indira
17.	Pallavi
18.	Ramakrishna
19.	Samalei
20.	Asattari
21.	Narendra-I
22.	Savitri (Ponmani)/CR 1009
23.	khitish
24.	CR138-928
25.	kaling-III
26.	Utkalprabha
27.	Neela
28.	Sarasa
29.	Udaya
30.	Annada

1	2	
31.	CR-1014	
32.	Dharitri	
33.	Gaytri	
34.	Heera	
35.	Kalashree	
36.	Kalyani-II	
37.	Kshira	
38.	Moti	
39.	Padmini	
40.	Panidhan	
41.	Tara	
42.	Tulasi	
43.	Vanaprabha	
44.	Shaktiman	
45.	CR-1002	
46.	Lunishree	
47.	Seema	
48.	Sneha	
49.	Vandana	
50.	Dhala Heera	
51.	Radhi	
52.	Sonamani	
53.	Tapaswini	
54.	Pooja	
55.	Sarala	
56.	Durga	
57.	Shatabdi	
58.	Anjali	

1	2
59.	Haqzari Dhan
60.	Sadabahar
61.	Abhishek
62.	Chandrama
63.	Virendra
64.	Geetanjali (Aromatic)
65.	Ketkejoha
66.	Naveen
67.	Varshadhan
68.	Satya Krishna CRD 10
69.	Nua Kalajeera
70.	Nua Dhusara
71.	Chandan (CR Boro dhan 2)
72.	Hanaseswari
73.	Swarna Sub 1
74.	CR Dhan 40 (Kamesh)
75.	Sahabhagidhan
76.	Phalguni
77.	Reeta
78.	Luna Suvarna
79.	Luna Sampad
80.	Nua Chinikamini
81.	Cr Dhan 501
82.	Cr Dhan 601
83.	CR Dhan 300
84.	CR Dhan 3500
85.	Satyabhama (CR Dhan 100)
86.	Pyari (CR Dhan 200)

1	2
87.	Hue (CR dhan 301)
88.	Improved lata
89.	Improved Tapaswini
90.	Sumit (CR Dhan 404)
91.	Poonam Bhaog
92.	Jalamani CR Dhan 503
93.	Jayantidhan CR Dhan 502
94.	Luna Bairal CR Dhan 406
95.	Luna Bsankhi CR Dhan 405
96.	CR Dhan 303
97.	CR Dhan 907
98.	CR Dhan 305
99.	CR Dhan 304
100.	CR Dhan 204
101.	CR Dhan 201
102.	CR Dhan 202
103.	CR Dhan 407
104.	CR Dhan 505
	ICAR-Central Citrus Research Institute, Nagpur
1.	NRCC Acid Lime -7
2.	NRCC Acid Lime -8
ICA	R-National Research Centre on Seed Spices, Ajmer
1.	Ajmer Coriander 1
2.	Ajmer Fenugreek 1
3.	Ajmer Fennel 1
4.	Ajmer Dill 1
5.	Ajmer Fenugreek 2
6.	Ajmer Dill 2

1	2				
7.	Ajmer Ajwain 1				
8.	Ajmer Fenugreek 3				
9.	Ajmer Nigella 1				
10.	Ajmer Ajwain 2				
11.	Ajmer Anise 1				
12.	Ajmer Celery 1				
ICAR-	-ICAR Research Complex for Eastern Region, Patna				
1.	Swarna Sampada (Tomato hybrid)				
2.	Swarna Vijaya (Tomato hybrid)				
3.	Swarna Anmol (Tomato hybrid)				
4.	Swarna Shakti (Brinjal)				
5.	Swarna Atulya (Capcicum)				
6.	Swarna Rekha (Pointed gourd)				
7.	Swarna Alaukik (Pointed gourd)				
8.	Swarna Priya (Rajma)				
9.	Swarna Mukti (Garden Pea)				
ICA	AR-Directorate of Groundnut Research, Junagarh				
1.	Groundnut - Girnar-2				
2.	Groundnut - Girnar-23				
ICAR-Dir	rectorate of Rapeseed & Mustard Research, Bharatpur				
1.	Mustard - Giriraj (DRMR IJ-31)				
2.	Mustard - NRCDR 02				
3.	Mustard -DRMR 601 (NRCDR 601)				
4.	Rapeseed - NRCHB 101				
5.	Rapeseed - NRCHB 506				
6.	Mustard - NRCYS 05-02				
ICAR-Centr	ral Coastal Agricultural Research Institute, Ela, Old Goa, Goa				
1.	Cardozo Mankurad - A Promising Mango Variety from Goa				
2.	Goa-1 (Balli-2) : A Cashew Variety for Goa				

1 2

ICAR- Indian Institute of Oil Palm Research, Pedavegi, West Godawari

1. Oil palm tissue culture

ICAR-Central Tuber Crops Research Institute, Trivandrum

- 1. Cassava: Sree Athulya
- 2. Cassava: Sree Apoorva
- 3. Cassava: Sree Jaya
- 4. Sweet potato : Sree Bhadra
- 5. Sweet potato : Sree Kanaka
- 6. Greater Yam : Sree Karthika
- 7. White Yam: Sree Subhra
- 8. White Yam : Sree Dhanya
- 9. Taro: Sree Rashmi
- 10. Taro: Mukthakeshi
- 11. Elephant foot Yam:Sree Padma

ICAR- Indian Institute of Oilseeds Research, Hyderabad

- 1. Sunflower hybrid: DRSH-1
- 2. Castor hybrid: DCH-519
- 3. Castor hybrid: DCH-177

ICAR-Indian Institute of Spices Research, Calicut

- 1. Ginger: IISR Mahima
- 2. Ginger: IISR Rejatha
- 3. Ginger: IISR Varada
- 4. Nutmeg: IISR Keralashree
- 5. Nutmeg: IISR Viswashree
- 6. Turmeric: IISR Alleppey Supreme
- 7. Turmeric: IISR Kedaram
- 8. Turmeric: IISR Prabha
- 9. Turmeric: IISR Prathiba

APPENDIX I

STANDING COMMITTEE ON AGRICULTURE (2015-16)

MINUTES OF THE SEVENTEENTH SITTING OF THE COMMITTEE

The Committee sat on Monday, the 28th March, 2016 from 1100 hours to 1300 hours in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Shri Hukm Deo Narayan Yadav — Chairperson

MEMBERS

Lok Sabha

- 2. Prof. Richard Hay
- 3. Shri Badaruddoza Khan
- 4. Shri Tapas Mandal
- 5. Shri Janardan Mishra
- 6. Shri Dalpat Singh Paraste
- 7. Shri Nityanand Rai
- 8. Shri Mukesh Rajput
- 9. Shri Konakalla Narayana Rao
- 10. Shri Satyapal Singh (Sambhal)

Rajya Sabha

- 11. Smt. Renuka Chowdhury
- 12. Shri Janardan Dwivedi
- 13. Shri Vinay Katiyar
- 14. Modh. Ali Khan
- 15. Shri Ram Nath Thakur
- 16. Shri Shankarbhai N. Vegad
- 17. Shri Darshan Singh Yadav

SECRETARIAT

1. Shri Arun K. Kaushik - Director

Smt. Juby Amar – Additional Director
 Shri Sumesh Kumar – Under Secretary

REPRESENTATIVES OF

MINISTRY OF AGRICULTURE & FARMERS WELFARE (Department of Agriculture Research and Education)

1. Shri Trilochan Mohapatra	Secretary (DARE) & DG (ICAR)
2. Shri Sunil Kumar Singh	Addl. Secretary & FA, DARE/ICAR
3. Shri Chhabilendra Roul	Addl. Secretary (DARE)& Sec. (ICAR)
4. Dr. N.K. Krishna Kumar	DDG (HS)
5. Dr. A.K. Sikka	DDG (NRM)
6. Dr. K. Alagusundaram	DDG (A. Engg.)
7. Dr. A. K. Singh	DDG (Ag Extn.)
8. Dr. Jeet Singh Sandhu	DDG (CS)
9. Dr. Narendra Singh Rathore	e DDG (Edn.)
10. Dr. Habibur Rahman	DDG (AS)
11. Dr. Joykrushna Jenna	DDG (Fy.Sc.)

- 2. At the outset, the Chairperson welcomed the Members of the Committee to the Sitting convened for Oral Evidence of the representatives of Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education) in connection with the examination of the Demands for the Grants 2016-17. Thereafter, the representatives of Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education) were ushered in. After welcoming the representatives of the Ministry to the Sitting, the Chairperson apprised them of the provisions of the Directions 55 (1) and 58 of the Directions by the Speaker, Lok Sabha regarding confidentiality of the proceedings.
- 3. After the witnesses introduced themselves, the Chairperson and the Members of the Committee raised several issues/points as briefly mentioned below and sought clarification/information from the Ministry thereon:
 - (i) Reasons for failure to achieve targets during 2015-16, if any;
 - (ii) Reasons for reduction in allocation to the Department at RE stage during 2015-16;

- (iii) Steps being taken for recruitment of Scientists to fill the vacancies in ICAR;
- (iv) Steps being taken to ensure infrastructure and manpower at KVKs in the country;
- (v) Steps being taken to ensure dissemination of information to farmers about outcome of R&D works of ICAR;
- (vi) Reasons for low allocations for implementation of KVKs scheme;
- (vii) Steps being taken for conservation and improvement of traditional seeds;
- (viii) Need to develop efficient & low cost agricultural implements for small and marginal farmers of the country in order to reduce cost of cultivation;
- (ix) Need to train village agricultural extension officials;
- (x) Need to increase enrolment of farmers in programmes being organized by KVKs;
- (xi) Need to establish more numbers of ICAR Institutes in eastern India especially in West Bengal;
- (xii) Need to bring publications of ICAR in regional languages in order to ensure widespread dissemination of information and articles useful for farmers;
- (xiii) Need to evolve mechanism to avoid duplication of Research in ICAR Institute;
- (xiv) Need to enhance numbers of research center and Technology Demonstration Center in country especially in eastern India under NICRA project in order to cover all agro-climatic zones and sub-zones;
- (xv) Need to develop short duration varieties of Arhar and Moong Dal;
- (xvi) Need to emphasize on R&D works on problems associated with agriculture in North-East India in order to ensure food security in country.
- 4. The Representatives of the Ministry responded to most of the queries raised by the Members. The Chairperson thanked the witnesses for sharing valuable information with the Committee on the subject and directed them to furnish the requisite information on the points/items, which were not readily available with them to the Secretariat of the Committee at the earliest.
- 5. A copy of the verbatim proceedings of the sitting has been kept separately.

The Committee then adjourned.

APPENDIX II

STANDING COMMITTEE ON AGRICULTURE (2015-16)

MINUTES OF THE TWENTY SECOND SITTING OF THE COMMITTEE

The Committee sat on Thursday, the 28th April, 2016 from 1000 hrs. to 1100 hrs. in Room No. '138', Chairperson's Chamber, Parliament House, New Delhi.

PRESENT

Shri Hukm Deo Narayan Yadav — Chairperson

MEMBERS

Lok Sabha

- 2. Shri Nalin Kumar Kateel
- 3. Md. Badaruddoza Khan
- 4. Dr. Tapas Mandal
- 5. Shri Ajay Nishad
- 6. Shri Dalpat Singh Paraste
- 7. Shri Nityanand Rai
- 8. Shri Mukesh Rajput
- 9. Shri Arjun Charan Sethi
- 10. Shri Satyapal Singh (Sambhal)

Rajya Sabha

- 11. Shrimati Renuka Chowdhury
- 12. Mohd. Ali Khan
- 13. Shri Ram Nath Thakur
- 14. Shri Shankarbhai N. Vegad

SECRETARIAT

1. Shri U.B.S. Negi — Joint Secretary

2. Shri Arun K. Kaushik — Director

3. Smt. Juby Amar – Additional Director
 4. Shri C. Vanlalruata – Deputy Secretary

5. Shri Sumesh Kumar — Under Secretary

2. At the outset the Chairperson welcomed the members to the Sitting of the Committee. The Committee, then, took up the following draft Reports for consideration:—

*(i)	XXX	XXX	XXX	XXX	XXX	XXX;
(ii)	XXX	XXX	XXX	XXX	XXX	XXX;
*(iii)	XXX	XXX	XXX	XXX	XXX	xxx:

- (iv) Twenty Sixth Report on Demands for Grants (2016-17) of the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education);
- 3. After some deliberations, the Committee adopted the draft Reports without any modification and authorized the Chairperson to finalise the Reports on the basis of factual verification from the concerned Ministry/Department and present the same to Parliament.

*4. XXX XXX XXX XXX XXX XXX

The Committee then adjourned.

^{*}Matter not related to this Report.