STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY AND FOOD PROCESSING

(2022-2023)

SEVENTEENTH LOK SABHA

MINISTRY OF AGRICULTURE AND FARMERS WELFARE (DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION)

'DEMANDS FOR GRANTS (2022-23)'

{Action Taken by the Government on the Observations/
Recommendations contained in the Thirty-Eighth Report (Seventeenth Lok
Sabha) of the Standing Committee on Agriculture, Animal Husbandry and Food
Processing (2021-22)}

FORTY-SEVENTH REPORT



LOK SABHA SECRETARIAT NEW DELHI

DECEMBER 2022/ AGRAHAYANA, 1944 (Saka)

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Processing (2021-22)}

Presented to Lok Sabha on 20.12.2022

Laid on the Table of Rajya Sabha on 20.12.2022



LOK SABHA SECRETARIAT

NEW DELHI

DECEMBER 2022/AGRAHAYANA, 1944 (Saka)



Price: Rs.

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Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Sixteenth Edition) and Printed by Lok Sabha Secretariat

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COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY AND FOOD PROCESSING* (2021-22)

Shri P.C. Gaddigoudar- Chairperson MEMBERS

LOK SABHA

- 2. Shri Afzal Ansari
- 3. Shri Horen Sing Bey
- 4. Shri Devendra Singh 'Bhole'
- Shri A. Ganeshamurthi
- 6. Shri Kanakmal Katara
- 7. Shri Abu Taher Khan
- 8. Shri Mohan Mandavi
- 9. Shri Kinjarapu Ram Mohan Naidu
- 10. Shri Devji Mansingram Patel
- 11. Smt. Shardaben Anilbhai Patel
- 12. Shri Bheemrao Baswanthrao Patil
- 13. Shri Shriniwaas Dadasaheb Patil
- 14. Shri Vinayak Bhaurao Raut
- 15. Shri Pocha Brahmananda Reddy
- 16. Shri Rajiv Pratap Rudy
- 17. Shri Mohammad Sadique
- 18. Shri Virendra Singh
- 19. Shri V.K. Sreekandan
- 20. Shri Mulayam Singh Yadav
- 21. Shri Ram Kripal Yadav

RAJYA SABHA

- 22. Smt. Ramilaben Becharbhai Bara
- 23. Shri Kailash Soni
- 24. Shri Ram Nath Thakur
- 25. Shri Vaiko
- 26. Shri Harnath Singh Yadav
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^{*}Standing Committee on Agriculture renamed as Standing Committee on Agriculture, Animal Husbandry and Food Processing *vide* Para No. 3293, Bulletin Part-II, dated 23.11.2021.

[®] Shri Partap Singh Bajwa, MP Rajya Sabha ceased to be a Member of the Committee *w.e.f.* 21.03.2022 due to resignation from the Membership of Rajya Sabha *w.e.f.* 21.03.2022; Sardar Sukhdev Singh Dhindsa ceased to be a Member of the Committee *w.e.f.* 09.04.2022 due to his retirement from Rajya Sabha *w.e.f.* 09.04.2022 and Shri Surendra Singh Nagar, ceased to be a Member of the Committee *w.e.f.* 04.07.2022 due to his retirement from Rajya Sabha *w.e.f.* 04.07.2022

SECRETARIAT

1. Shri Shiv Kumar - Additional Secretary

2. Shri Sundar Prasad Das - Director

3. Shri Prem Ranjan - Deputy Secretary

COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY AND FOOD PROCESSING (2022-23)

Shri P.C. Gaddigoudar- Chairperson MEMBERS

LOK SABHA

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- 3. Shri Horen Sing Bey
- 4. Shri A. Ganeshamurthi
- Shri Kanakmal Katara
- 6. Shri Abu Taher Khan
- 7. Shri Ram Mohan Naidu Kinjarapu
- 8. Shri Mohan Mandavi
- 9. Shri Devji Mansingram Patel
- 10. Smt. Sharda Anilkumar Patel
- 11. Shri Bheemrao Baswanthrao Patil
- 12. Shri Shriniwas Dadasaheb Patil
- 13. Shri Vinayak Bhaurao Raut
- 14. Shri Pocha Brahmananda Reddy
- 15. Shri Rajiv Pratap Rudy
- 16. Mohammad Sadique
- 17. Shri Devendra Singh alias Bhole Singh
- 18. Shri Virendra Singh
- 19. Shri V.K. Sreekandan
- 20. Shri Ram Kripal Yadav
- 21. VACANT

RAJYA SABHA

- 22. Smt. Ramilaben Becharbhai Bara
- 23. Shri Masthan Rao Beeda
- 24. Dr. Anil Sukhdeorao Bonde
- 25. Shri S. Kalyanasundaram
- 26. Shri Surendra Singh Nagar
- 27. Shri Kailash Soni
- 28. Shri Randeep Singh Surjewala
- 29. Shri Ram Nath Thakur
- 30. Shri Vaiko
- 31. Shri Harnath Singh Yadav

^{*} Vacant w.e.f. 10.10.2022 due to demise of Shri Mulayam Singh Yadav on 10.10.2022 vide Bulletin- Part II, Para No. 5316 dated 14.10.2022.

SECRETARIAT

1. Shri Shiv Kumar - Additional Secretary

2. Shri Naval K. Verma - Director

3. Shri Uttam Chand Bharadwaj - Additional Director

4. Shri Prem Ranjan - Deputy Secretary

INTRODUCTION

I, the Chairperson, Standing Committee on Agriculture, Animal Husbandry and

Food Processing (2022-23), having been authorized by the Committee to submit the

Report on their behalf, present this Forty-Seventh Report on Action-taken by the

Government on the Observations/Recommendations contained in the Thirty-Eighth

Report (Seventeenth Lok Sabha) of the Standing Committee on Agriculture, Animal

Husbandry and Food Processing (2021-22) on 'Demands for Grants (2022-23)'

pertaining to the Ministry of Agriculture and Farmers Welfare (Department of

Agricultural Research and Education).

2. The Thirty-Eighth Report (Seventeenth Lok Sabha) of the Standing Committee

on Agriculture, Animal Husbandry and Food Processing (2021-22) on 'Demands for

Grants (2022-23)' pertaining to the Ministry of Agriculture and Farmers Welfare

(Department Agricultural Research and Education) was presented to Lok Sabha and

laid on the Table of Rajya Sabha on 24 March, 2022. The Action Taken Notes on the

Report were received on 06 June, 2022.

3. The Report was considered and adopted by the Committee at their Sitting held

on 15 November, 2022.

4. An Analysis of the action taken by the Government on the

Observations/Recommendations contained in the Thirty-Eighth Report (Seventeenth

Lok Sabha) of the Committee is given in **Appendix**.

NEW DELHI;

6 December, 2022

15 Agrahayana, 1944(Saka)

P.C. GADDIGOUDAR

Chairperson,

Standing Committee on Agriculture,

Animal Husbandry and Food Processing

(vii)

CHAPTER - I

REPORT

This Report of the Standing Committee on Agriculture, Animal Husbandry and Food Processing deals with the Action-taken by the Government on the Observations/Recommendations contained in the Thirty Eighth Report (Seventeenth Lok Sabha) of the Standing Committee on Agriculture, Animal Husbandry and Food Processing (2021-2022) on 'Demands for Grants (2022-23)' pertaining to the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education) which was presented to Lok Sabha and also laid on the Table of Rajya Sabha on 24.03.2022.

- 1.2 The Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) has furnished Action-taken Replies in respect of all the 12 Observations/Recommendations contained in the Report. These Replies have been categorized as under:
 - (i) Observations/Recommendations that have been accepted by the Government:

Recommendation Nos. 1, 2, 3, 4, 5, 6, 7, 10 and 11

Total - 09 Chapter- II

(ii) Observations/Recommendations which the Committee do not desire to pursue in view of the Government's replies:

Recommendation No. Nil

Total - 00 Chapter- III

(iii) Observations/Recommendations in respect of which Replies of the Government have not been accepted by the Committee:

Recommendation Nos. 8 and 12

Total- 02

Chapter- IV

(iv) Observations/Recommendations in respect of which final replies of the Government are still awaited:

Recommendation No. 9

Total- 01 Chapter- V

- 1.3 The Committee desire that utmost importance would be given by the Ministry of Agriculture and Farmers Welfare (Department of Agricultural Research and Education) to implement the Observations / Recommendations accepted by the Government. In cases where it is not possible for the Ministry/Department to implement the Recommendations in letter and spirit for any reason, the matter be intimated in writing to the Committee with reasons for non-implementation. The Committee desire that further Action-taken Notes on the Observations / Recommendations contained in Chapter-I and Final Action-taken Replies to the Recommendations contained in Chapter-V of this Report be furnished to them at an early date.
- 1.4 The Committee will now deal with the Action-taken by the Government on some of the Recommendations in the succeeding paragraphs.

A. <u>Krishi Vigyan Kendra (KVKs)</u> Recommendation (Serial No.8)

1.5 The Committee had observed/ recommended as under:-

"The Committee note that Agricultural Extension Division is carrying out on-farm testing to identify the location specificity of agricultural technologies, frontline demonstration to demonstrate the production potential of different crops, training of farmers and extension personnel on knowledge and skills improvement and creating awareness on improved technologies among farmers of the country through a network of 727 Krishi Vigyan Kendra (KVKs) spread over 750 Districts in the Country. The Committee also note the reply of the Department that as per the decision of the Government one KVK is to be sanctioned in each of the rural Districts. At present there are 727 KVKs in the Country, more than one KVK is reportedly functioning in 92 Districts even though 73 Districts in the Country do not have a single KVK. The Districts having more than one KVK are decided based on a composite index with the average of three indices viz. geographical area, rural population and net sown area. The Committee have been apprised that out of 727 KVKs, all KVKs have instructional farms, however, only 663 KVKs have administrative buildings and 563 KVKs have farmers' hostels. Further, there is a provision 01 Senior Scientist & Head and 6 Subject Matter Specialists

(SMSs) in each KVK. However, there are 193 vacant posts of Senior Scientists & Head and 1257 vacant posts of SMSs. The Committee are of considered view that the KVKs should be strengthened without delay and made more productive in terms of extension programmes and outreach to maximize benefit to the farming population in their area. The Committee, therefore, recommend the Department to open at least one KVK in remaining 73 Districts during 2022-23, which do not have a single KVK and in Districts which deserve more than one KVK on the basis of a composite index with the average of three indices viz. geographical area, rural population and net sown area. Sufficient funds may be demanded by the Department in this regard. The Committee also recommend the Department to ensure availability of requisite facilities - Infrastructure. Machinery, Equipments and Tools, Manpower etc. at KVKs for demonstration and training and to promote awareness among farmers about newly developed seeds. machines. agricultural technologies/practices, etc. through demonstrations, exhibitions etc. and also to check the efficacy and result of training provided to farmers at KVKs in order to reap the maximum benefit. "

- 1.6 In its Action-taken Reply, the Department has stated as under:-
 - "Department placed efforts for infrastructure creation in KVKs as per the availability of funds. Provisions have been made for remaining basic infrastructure in the current plan. During last five years, as per requirement, the number of KVKs have been strengthened with other infrastructure facilities like, farm machineries and equipment, Pulses seed hubs, soil testing kits, micro-irrigation systems, etc. At present, there are 731 Krishi Vigyan Kendras (KVKs) in the country and there is a provision of establishment of 14 more KVKs in the country as per EFC."
- 1.7 Recognizing the role played by the Krishi Vigyan Kendras (KVKs) in Extension and Outreach Programme to maximize benefits to the farming population, the Committee had recommended the Department to open KVKs at least one KVK in remaining 73 Districts during 2022-23, which do not have a single KVK and in Districts which deserve more than one KVK, on the basis of a composite index with the average of three indices viz. geographical area, rural population and net sown area. The Committee had also recommended the Department to ensure availability of requisite facilities Infrastructure, Machinery,

Equipments and Tools, Manpower etc. at the KVKs for demonstration and training and to promote awareness among farmers about newly developed seeds, machines, agricultural technologies/practices, etc. through demonstrations, exhibitions etc. and also to check the efficacy and result of training provided to farmers at KVKs in order to reap the maximum benefit. The Department in its Action-taken reply has submitted that at present, there are 731 Krishi Vigyan Kendras (KVKs) in the Country and there is a provision of establishment of 14 more KVKs in Country as per Expenditure Finance Committee (EFC). Further, the Department has placed efforts for creation of infrastructure in the KVKs as per the availability of funds. Provisions have been made for remaining basic infrastructure in the current plan. During last five years, as per requirement, the number of KVKs have been strengthened by the Department with other infrastructure facilities like, farm machineries and equipment, Pulses seed hubs, soil testing kits, micro-irrigation systems, etc.. The Committee are constrained to note that the reply of the Department is very casual and general in nature. The Department has not bothered to submit action taken by them regarding opening of KVKs - at least one KVK in remaining 73 Districts during 2022-23, which do not have a single KVK and in Districts which deserve more than one KVK on the basis of a composite index. The reply of the Department is conspicuously silent on the issue of checking the efficacy and result of training provided to farmers at the KVKs. Further, the Department has also not submitted about the steps taken/being taken to ensure availability of requisite facilities - Infrastructure, Machinery, Equipments and Tools, Manpower etc. at Krishi Vigyan Kendras (KVKs). The Committee, therefore, reiterate their earlier recommendation to open at least one KVK in the remaining 73 Districts during 2022-23, which do not have a single KVK and in the Districts which deserve more than one KVK on the basis of a composite index with the average of three indices viz. geographical area, rural population and net sown area and to ensure availability of requisite facilities - Infrastructure, Machinery, Equipments and Tools, Manpower etc. at KVKs for demonstration and training and to promote awareness among farmers about newly developed seeds, machines, agricultural technologies/practices, etc. through demonstrations, exhibitions etc. and also to check the efficacy and result of training provided to farmers at KVKs in order to reap the maximum benefit.

B. <u>Agricultural Education</u> Recommendation (Serial No. 9)

1.8 The Committee had observed/ recommended as under:-

"The Committee note that Agricultural Education Division coordinates education planning, human resource development and quality reforms of National Agricultural Research System of the country. It strives for maintaining and upgrading the quality and relevance of Higher Agricultural Education through restructuring and reorienting course curricula, accreditation of Agricultural Universities/Institutions and linking it with the release of grants, evolving the grading system, initiation of Ranking of Agricultural Universities etc. The Committee fully agree with the view of the Department that there is a need to revise syllabi of Agricultural Universities to meet the need of Natural, Zero-Budget and Organic Farming, modern-day agriculture, value addition and management. The Committee have been further informed that the Department of Agricultural Research and Education plays an active role in formulation and revision of syllabi of Agricultural Universities of the country and the syllabus has been made uniform across the country. The Syllabus of Undergraduate courses is revised/ updated as per requirements through constitution of Deans' Committee every 10 years. Sixth Deans' Committee has been constituted for the necessary curriculum modification as per recommendation and implementation of the National Education Policy, 2020 (NEP 2020) in Agricultural Universities. Broad Subject Matter Area Committees (BSMA) finalized the syllabi for 79 Disciplines of PG and Ph.D. Courses as per the Provisions of the NEP 2020. Further, the syllabus of Organic farming has been implemented in both UG, PG and Ph.D. Curricula and the Committee has been constituted for the introduction of Natural farming in both UG and PG curricula. The said Committee will draw the guidelines and framework for the course content. The Committee feel there is an imperative need that the Department should expedite formulation of guidelines and framework for the course content of Natural Farming for introduction in both UG and PG Curricula. "

1.9 In its Action-taken Reply, the Department has stated as under:-

"Department has constituted a committee with the approval of Hon'ble Agriculture Minister on 31 March 2022 for developing syllabus & curricula of natural farming in PG and UG programmes. The syllabus shall be integrated into the existing Undergraduate courses at State Agricultural Universities, Deemed Universities, Central Agricultural Universities and Central Universities with Agricultural Colleges. The recommended syllabus shall be implemented from the next academic session in the agricultural universities."

During the examination of the Demands for Grants 2022-23 of the Department, it was informed that a Committee has been constituted to draw the guidelines and framework for the Course content of Natural Farming for its introduction in both Undergraduate (UG) and Post Graduate (PG) Curricula, the Committee had recommended to expedite formulation of guidelines and framework for the course content of Natural Farming for introduction in both Undergraduate (UG) and Post Graduate (PG) Curricula. The Department in its Action-taken reply has submitted the already known information that a Committee has been constituted with the approval of Hon'ble Agriculture Minister on 31 March 2022 for developing Syllabus & Curricula of Natural Farming in PG and UG Programmes. Further, the Syllabus shall be integrated into the existing Undergraduate courses at State Agricultural Universities, Deemed Universities, Central Agricultural Universities and Central Universities with Agricultural Colleges. The recommended Syllabus shall be implemented from the next academic session in the agricultural universities. The Committee, while appreciating the efforts of the Department, desire the Department to expedite development of syllabus and curricula of Natural Farming for Undergraduate (UG) and Post Graduate (PG) programme. Action-taken in this regard may be intimated to them.

C. <u>Vacancies at the Institutes of ICAR</u> Recommendation (Serial No.12)

1.11 The Committee had observed/ recommended as under:-

"The Committee are dismayed to note that there are large vacancies at the Institutes of ICAR as out of Sanctioned Strength of 5988 Scientific Posts, 10829 Administrative Posts and 6967 Technical Posts, Actual Strength are 4858, 6909

and 4106 respectively at the Institutes of ICAR. The Department has not furnished any specific reason for shortage of manpower at the Institutes of ICAR and has brazenly stated that the vacancies in different cadres/positions of Scientists do not affect functioning and achievement of desired results. However, during the Study Visit of the Standing Committee on Agriculture, Animal Husbandry and Food Processing (formerly Standing Committee on Agriculture) to ICAR-Central Coastal Agricultural Research Institute (CCARI), Goa on 6th September, 2021, ICAR-National Institute of Biotic Stress Management (NIBSM), Baronda, Raipur on 8th September, 2021 and ICARCentral Marine Fisheries Research Institute (CMFRI), Vishakhapatnam on 10th September, 2021, the Committee were apprised inter-alia about shortage of manpower and various Scientific and Administrative posts laying vacant in these Institutes, as challenges faced by the Institutes in their smooth functioning. All these realities reflect very poorly on the functioning of the Department. The Department, during the course of examination, informed that recruitment is a continuous process and the ICAR make out all efforts for filling up of vacant post and is now on a war footing to fill these vacant positions. The Committee, therefore, strongly recommend the Department to fill up the vacant Scientific, Administrative and Technical Posts at Institutes of ICAR expeditiously during 2022-23 for the smooth and more meaningful functioning of the Institutes. The Committee also recommend the Department to initiate recruitment process well in advance taking into account retirement of personnel and assessing the requirements of manpower at the various Institutes instead of delaying recruitment on one pretext or other-resulting in large scale vacancies at various Institutes. The Committee would like to be apprised of the action taken by the Department and the Research Institutes in the matter."

1.12 In its Action-taken Reply, the Department has stated as under:-

"Department made all efforts for filling up the vacant positions. The recruitment of scientific positions is a continuous process and present recruitment of approx. 220 Scientists is at the interview stage and process for sending the next set of 210 vacancies of scientists to ASRB is in process for filling up the vacant posts of scientists in difficult areas. Further, against vacancy notification Advt. No. 01/2021 for

filling up the 89 Research Management positions in ICAR, recruitment process has already been started, wherein 05 posts have already been filled and recruitment for remaining posts is under process. The Recruitment for vacant 763 technical posts (T-1) is in process for which examination was held during February-March 2022. The process of recruitment of 748 vacancies of Technical Assistant (T-3) has been initiated and is under process. The advertisement for the recruitment of 467 posts of Assistants have been notified and exam will be conducted soon. The recruitment examination for 46 vacant posts of Senior Technical Officer (STO) (T-6) has already been conducted and the interview process has been completed."

1.13 Taking note of large vacancies of Scientific, Administrative and Technical Posts at the Institutes of Indian Council of Agricultural Research (ICAR), the Committee had recommended the Department to fill up the vacant Posts at Institutes of ICAR expeditiously during 2022-23 for the smooth and more meaningful functioning of the Institutes. The Committee had also recommended the Department to initiate recruitment process taking into account retirement of personnel and assessing the requirements of manpower at the various Institutes instead of delaying recruitment on one pretext or other-resulting in large scale vacancies at various Institutes. The Department in its Action-taken reply has submitted that it made all efforts for filling up of the vacant positions. The recruitment process for Scientists, Technical Posts, Assistant Posts, etc are at different stages. For some posts, examination and interview have been completed; for some posts examination have been conducted and interviews are to be held; for some advertisements have been issued and examination are to be conducted; and for some advertisements have to be issued. However, the Committee note that the Department has not furnished any target date by which the recruitment processes will be completed and the vacant posts will be filled. Further, even after completion of the recruitment processes of the posts, substantial number of posts will remain lying vacant at the Institutes of ICAR. The Committee also note that the Department has not stated anything on the issue of initiating recruitment process well in advance taking into account retirement of personnel and assessing the requirements of manpower at the various Institutes. The Committee, therefore, reiterate their earlier recommendation and desire the Department to fill up the vacant Scientific, Administrative and Technical Posts at all Institutes of ICAR expeditiously during 2022-23 for the smooth and more meaningful functioning of the Institutes. Further recruitment process may be initiated without any delay after taking into account retirement of personnel and assessing the requirements of manpower at the various Institutes instead of delaying recruitment on one pretext or other-resulting in large scale vacancies at various Institutes.

CHAPTER - II OBSERVATIONS/RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNMENT

Budgetary Allocation

Recommendation Serial No. 1

The Committee note that an allocations (BE) of Rs. 8513.62 Crore has been made to the Department of Agricultural Research and Education which is 0.22% of total allocation of Rs.3944909 Crore of Central Government for 2022- 2023. The Committee also observe that the Department had proposed Rs. 9698.91 Crore for BE 2022-2023. However, the allocation of Rs. 8513.62 Crore (BE) has been made for 2022-2023, which is equal to the allocations made in BE 2021-22 and RE 2021-22, despite the fact that total Budget of the Government of India has increased from Rs 3483236 Crore in 2021-22 to Rs. 3944909 Crore in 2022-23. So, the proportions (in % terms) of Budgetary Allocation made in favour of the Department out of the total Budget of the Government of India has been reduced from 0.24% in 2021-22 to 0.22% in 2022- 23. The Committee also note that Agriculture plays a vital role in India's Economy and the Department of Agricultural Research and Education coordinates and promotes Agricultural Research and Education in the Country and has been playing a crucial role in making agriculture sustainable through use of eco-friendly management and innovative technologies which enabled the Nation not only to be food and nutrition secure but also improved livelihood of the farmers. The Committee are of the considered view that there is a need for enhancement in allocations for the Department so as to ensure adequate availability of funds for the Programmes, Schemes and other activities planned by the Department and its constituent Research Institutes. The Committee, therefore, recommend the Government to enhance the allocation for the Department of Agricultural Research and Education in the RE 2022-23. The Committee desire the Department to take up this matter and vigorously pursue for enhancement of funds with the Ministry of Finance and apprise them of the outcome

REPLY OF THE GOVERNMENT

The Department is continuously pursuing the matter for enhanced budget allocation for Department of Agricultural Research & Education with Ministry of Finance. As recommended by the Committee the Department will continue to pursue for higher allocation in the RE 2022-23. Further the Secretary, DARE and Financial Advisor, DARE have been raising this issue at appropriate forum. The Secretary, Department of

Agricultural Research and Education has written DO letters dated 11.11.2021 and 21.01.2022 for additional allocation of funds to the Department.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Allocations under Scheme Head Recommendation Serial No. 2

The Committee note that the out of total allocation (BE) of Rs. 8513.62 Crore for the Department for the year 2022-23, Rs. 1995.83 Crore has been allocated under Central Sector Scheme Head which constitute around 23.44% of the total allocation. The remaining amount has been allocated under Non-Scheme (Establishment), which would be spent on salaries, pensions, establishment expenses, etc. The allocations (BE) of Rs. 1995.83 Crore under Central Sector Scheme Head for the year 2022-23 is Rs. 690.17 Crore less than the allocation of Rs. 2686.00 Crore made in BE 2021-22 and Rs. 351.17 Crore less than the allocation of Rs. 2347.00 Crore made in RE 2021-22 though the total funds allocated to the Department remained the same i.e. Rs. 8513.62 Crore. Thus, the proportion of allocation (BE) made under the Central Sector Scheme Head, out of the total allocation to the Department has reduced from 31.55% in 2021-2022 to 23.44% in 2022-2023. The Committee are of the firm opinion that reduced allocation for 2022-23 particularly under Scheme Head would create constraints in research and development activities and many proposed activities may not be taken up. The Committee, therefore, recommend the Department to take up the matter of enhancing the allocation under Central Sector Scheme with the Ministry of Finance in order to enhance allocation at RE level.

REPLY OF THE GOVERNMENT

The Department is continuously making all efforts for the enhanced allocations under Scheme head. Accordingly, Secretary Department of Agricultural Research and Education has written DO letter dated 21.01.2022 requesting the Expenditure Secretary to increase allocation under scheme budget. The matter for enhancing scheme budget will also be put before the Finance Ministry during the Supplementary Demands as well as during the RE stage.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Surrender of Funds

Recommendation Serial No. 3

The Committee note from the reply of the Department that the Department has surrendered unspent balances of Government grant of Rs. 128.63 Crore and Rs. 68.63 Crore for the Financial Years 2019-20 and 2020-21 respectively. The break-up of the surrendered amount is Rs. 97.05 Crore under Scheme and Rs. 31.58 Crore under Non-Scheme for the Financial Year 2019-20 and Rs. 68.13 Crore under Scheme and Rs. 0.50 Crore under Non-Scheme in the Financial Year 2020-21. However, an amount of Rs. 35.37 Crore pertaining to the National Agricultural Higher Education Project (NAHEP) has been revalidated for utilization during 2021-22. The Committee also note that surrender of funds by the Department is mainly due to less utilization of Allocated Fund under different Schemes/Heads of the Department. The Committee were informed that the less utilization of funds is due to COVID-19 Pandemic, nonfinalization of Expenditure Finance Committee (EFC) proposals, delay in allocation in Revised Estimates, late submission of bills by different Institutes, proper adherence to Financial Rules, Administrative reasons, etc. The Committee are constrained to note that surrender of such large amount of funds year after year is not at all a healthy practice and it adversely affects implementation of the Schemes especially in view of the Department's request for enhancing Budgetary Allocations. The Committee are of the considered view that there should be full utilization of scare funds made available under various Schemes. The Committee recommend that the pace of expenditure and flow of funds under the various Schemes should be monitored regularly so as to avoid such huge surrender of funds. The Committee also recommend the Department to identify the factors/reasons which hinder or restrict the utilization of funds and take appropriate ameliorative action accordingly.

REPLY OF THE GOVERNMENT

Department has developed astringent funds monitoring system for efficient and effective utilization under various schemes, so that surrender of funds get minimized. As a result, the utilization of funds over the years have improved considerably and that the surrender of funds has decreased. During 2021-22, the surrender of funds is likely to get further minimized since the provisional expenditure reported was about 99.41% of the Grants received by different units of the Council.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

<u>Development of Climate Resilient Technologies and Conservation of Endemic Crops</u> Recommendation Serial No. 4

The Committee note that the Natural Resources Management Division covers the area of sustainable management of natural resources and is conducting research in farmers' participatory mode addressing issues at ground level to develop location specific, cost effective, eco-friendly, climate resilient technologies keeping in view the resource availability with the farmers, traditional/ indigenous technology knowhow and grass-roots farm innovations to enhance agricultural production, productivity and profitability in the country. The Committee also note that the ICAR has developed facility at the National Bureau of Plant Genetic Resources (NBPGR), New Delhi as the national level nodal Institute for collection, characterization, evaluation, conservation and exchange of plant genetic resources. Conservation of traditional varieties, local cultivars, crop wild relatives and endemic varieties is being undertaken at 10 regional stations across the Country. The Committee further note that many Endemic Crop Varieties are on the verge of extinction and at times, farmers are also suffering due to vagaries of nature such as climate change, untimely flood, drought, etc. The Committee, therefore, recommend the Department to give priority to the development of area specific, cost effective, eco-friendly, Climate Resilient Technologies traditional and indigenous technical knowhow. The Committee also recommend the Department to take proactive steps for conservation of Endemic Crops so as to save them from extinction as many of these crops possess high nutritive and medicinal qualities.

REPLY OF THE GOVERNMENT

Department developed and demonstrated several location-specific, cost-effective, eco-friendly and climate resilient technologies on large scale through farmers' participatory mode in the climatically vulnerable districts (very high and high risk prone) of the Country. A total of 85 new districts have been added to the list of climatically vulnerable districts of the Country since 1st April 2021 as per the revised risk and vulnerability assessment. Department is operating National Innovations in Climate Resilient Agriculture (NICRA)project through 25 partner institutes involving 17 competitive and 1 sponsored grants component for strategic research on climate resilienceto better understand the impact of climate change on different sectors, viz., crops, natural resources, fisheries and livestock and to developnew area specific, cost effective, eco-friendly climate resilient technologies that could enhance the production, productivity and profitability of resource poor farmers in the country. The farmers of the Country were made aware of the technological developments on Climate resilient agriculture through 3000 training programs by benefiting 50000 farmers.

ICAR has a National Bureau of Plant Genetic Resources (ICAR-NBPGR), which has partnership with State Agricultural Universities (SAUs)and Biodiversity International for

management, exploration and conservation of plant genetic resources (PGR) of the National and exotic plant and horticulture crops. The initiatives of PGR management in India are maintaining and making use of high diversity crops through increased availability of traditional local varieties and enhanced access to new adapted and resilient diversity. Many of these traditional varieties were lost or got degenerated due to non-cultivation and poor maintenance. To improve access to good seeds, community seed banks have been established and strengthened at community level involving KVKs and Self-Help Groups in remote and tribal areas of the country conserving >4000 native landraces and farmers' varieties of many food crops. Department promoted to maintain the set of selected varieties of wheat (44) and rice (34) with 15000 wheat farmers and 7000 rice farmers, respectively. Several hundreds of landraces and farmer's varieties are still being maintained by some farmers and to conserve these varieties, community seed banks have been initiated. Farmers currently maintain over 2,000 traditional varieties of different crops; the initiatives will provide easier farmer access to a wider variety of seeds.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

<u>Promotion of Mechanization in Agriculture</u> Recommendation Serial No. 5

The Committee note that one of the focus areas of working of Agricultural Engineering Division is on identifying the mechanization gap and future needs of improved farm equipment and machinery for different agroclimatic regions, crops, operations and reducing drudgery of agricultural workers. Several improved farm equipment/machines/ gadgets, technologies, etc. have been developed and popularized contributing to mechanization of agriculture in India. The Committee also note that there are wide inter-regional disparities in the level of mechanization in the Country. The Committee are of the view that Agriculture Mechanization is an essential input in Modern Agriculture to increase productivity and for making judicious use of other inputs like seeds, fertilizers, chemicals, pesticides and natural resources like water, soil nutrients, etc. besides reducing human drudgery and cost of cultivation. Agriculture Mechanization also helps in improving safety and comfort of the agricultural workers, improvements in the quality and value of farm produce and also enabling farmers to take a second and subsequent crop making Indian agriculture more attractive and profitable. It can enable Indian farming to switch over from being subsistence-based to commercially based. The Committee, therefore, recommend the Department to give priority to development of cost effective, affordable agricultural technologies/practices, machines, equipment, etc. suitable for less mechanized regions of the Country so as to remove interregional disparities in level of mechanization in the Country.

REPLY OF THE GOVERNMENT

Department through its Research Institutes, All India Coordinated Research Project (AICRP) on Farm Implement and Machinery (25 Centers), Utilization of Animal Energy (9 Centres) and Ergonomics and Safety in Agriculture (11 Centres) located across the country is developing cost effective and affordable agricultural technologies including farm machines, equipments and implements for agricultural mechanization suitable to different regions. The affordable technologies developed during recent years include: Light weight multi-crop thresher for hills. CIAE manual stalk up-rooter, Hand held vegetable transplanter. Manually operated pull type three row planter for millets, Animal drawn weeder-cum-fertilizer applicator, Site-specific fertilizer applicator for top dressing in wide spaced crops, Banana sucker trimmer equipment, Banana pseudo stem injector, Banana bunch harvester, Manually operated liquid injector for orchard crops, Manual tools for chemical swabbing and bark removing operations in grape cultivation, Manually operated EPN (Ethyl p-nitrophenyl thino benzene phosphonate) applicator, Automatic irrigation system for rice, Portable paddy straw briquetting machine, Solar powered knapsack sprayer, Solar powered bird scarer, Solar powered prime mover for spraying and weeding operations, Modular system for bulk storage of onion, Natural ventilator based modular onion storage system, Manual and power operated small onion grader, Multi grain mill, Groundnut cum castor decorticator, Pedal cum power operated cleaner, Parboiling unit, Fruit grader, Tamarind dehuller-deseeder, Manual arecanut dehusker, White peeper making machine, Turmeric polisher, Multipurpose polyhouse solar dryer, Fluidized bed drier for mushroom, Cumin cleaner-cum-grader, Fruits and vegetable washing machine, Garlic bulb breaker, Apricot Kernel Oil decortications and extraction and Aloe Vera gel extractor.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Stubble Burning Recommendation Serial No. 6

The Committee note that Air pollution due to Stubble Burning in the various parts of the Country and specifically in the States of Haryana, Punjab, Uttar Pradesh and the NCT of Delhi has been a major concern and to contain and mitigate this perennial problem, in-situ management of Crop Residue is required. The Committee have been informed that a Central Sector Scheme on 'Promotion of Agricultural Mechanization for In-situ Management of Crop Residue in the States of Punjab, Haryana, Uttar Pradesh and NCT of Delhi' to curb the burning of crop residues and reducing winter smog pollution is being operated by the Department of Agriculture and Farmers Welfare (DA&FW). The Committee have

been further informed that the Department of Agricultural Research and Education has developed equipments for In-situ crop residue management which include Happy Seeder, Straw Chopper cum spreader, Super straw management system for existing combines etc. and demonstrated in the farmers field to create awareness and confidence of the farmers. Pusa Bio-decomposer, developed for rapid decomposition of crop-residues, is sprayed on the crop residues in the field and mixed into the soil with rotavator for the faster decomposition process and demonstrated in the farmers field at large scale. The KVKs are also putting efforts for creating awareness among farmers to use machines for in-situ crop residue management in Punjab, Harvana and Uttar Pradesh. The Committee, while appreciating the efforts made so far by the Department, recommend them to develop technologies and equipment and Bio-decomposers for in-situ management of Crop Residue that can be bought by the poor farmers in the Country. The Committee also recommend the Department to create awareness among farmers through demonstrations, training programs, Kisan Mela, distribution of leaflets/Pamphlet, etc. for promoting use of machine and Biodecomposer for in-situ Crop Residue Management so as to contain Stubble Burning in the States of Punjab, Haryana and Uttar Pradesh and consequently reduce air pollution.

REPLY OF THE GOVERNMENT

Department is operating a project for development of technology for mechanical cum microbial intervention to reduce paddy straw burning and aimedat development of low-cost applications for paddy straw management. During 2021, the UP, Haryana, Punjab and Delhi governments facilitated with the supplying of Pusa Decomposer to the farmers for an area of around 10 lakh acres. ICAR-IARI collaborated with Nurture Farm (UPL) for application of Pusa Decomposer in 4.5 lakh acres of paddy straw in Punjab and Haryana in 2021 and targeted ~10 lakh acres in 2022 with Pusa Decomposer spray. Other technologies developed includes, the 'Urea Solution Spraying System for Straw Baler' to pre-treat paddy straw during the bailing operation and the said pre-treated straw is suitable for animal feed. The cost of retrofitted Urea Solution Spraying System is Rs. 30,000/- and the cost of urea treatment with a developed spraying system is Rs. 0.50/- per kg of straw in addition to the cost of bale making. Technologies developed for the ex-situ management of crop residues are; i) Enriched biochar from paddy straw, ii) briquettes from paddy straw, and iii) bio-gas production from paddy straw.

Department has made all efforts for wider awareness among the farmers about the availability of various technologies including implements, Pusa Decomposer, Urea Solution Spraying System for Straw Baler and ex-situ management of paddy straw through number of discussions held on DD Kisan, Pusa Samachar weekly, U-tube channel, articles in local magazines and newspapers, Kisan Melas and organization of field days.

The ICAR-KVKs put tremendous effort for creating awareness among farmers to use machines for in-situ crop residue management through Information Education and Communication (IEC) activities in Punjab, Haryana and Uttar Pradesh. The IEC activities were conducted during last four years includes 2558 awareness programs, 33,508 demonstrations of machines for crop residue management, 856 training programs to the farmers,517 exposure visits of farmers, 147 Kisan Melas organized, 117,700 students were mobilized from 1125 schools, 13.6 lakh leaflets/pamphlets distributed, conducted 425 TV programs/panel discussions, fixed 3649 hoardings placed 39071 posters/banners, 1274 advertisements in print media, and 10,690 wall writings.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Organic Farming Recommendation Serial No. 7

The Committee note that the focus of Crop Science program is on genetic enhancement of field crops for yield, quality and tolerance to biotic and abiotic stresses. The Committee also note that due to rising health consciousness, the demand for Chemical free Organic Produce has been increasing. The Committee have been informed that the Department has developed Organic Farming Packages for 62 Cropping Systems suitable to only 16 States. The Committee are of the view that the Country has a vast potential for the expansion of Chemical free Organic Farming and there is a need to harness this potential. The Committee, therefore, recommend the Department to give priority for research on development of cost effective, new Organic and Natural Farming Practices specific to different parts of the Country. The Committee also recommend the Department to create awareness among farmers about the newly developed Organic Farming Practices/ Technologies through its various Programmes and activities so as to increase the area under Organic Farming which, in turn, not only helps in augmenting the income of the farmers but also health of the people at large.

REPLY OF THE GOVERNMENT

Department has an All India Network Programme on Organic Farming (AINP-OF) operating in 16 States to develop package of practices for organic production of crops in cropping systems and farming systems perspective with involvement of 11 State Agricultural Universities, 8 ICAR institutes/ centres and 1 special heritage university. Organic farming packages for 62 cropping systems suitable to 16 Statesand 8 integrated organic farming system models suitable to 7 States have also been developed to provide technological backstopping. From, kharif 2021, evaluation of natural farming practices in 8 major cropping

systems covering 16 states has been initiated. Capacity building programmes including trainings, awareness campaigns, workshops etc. are organized to popularize the organic farming practices /technologies. During May and August 2021, virtual awareness on package of practices, integrated organic farming systems, standards, certification and benefits of organic farming were organized in regional languages in 16 States namely Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Punjab, Rajasthan, Sikkim, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal, where 11763 stakeholders were benefitted. A total of 183 candidates from 23 States have completed the Certified Farm Advisor course on Organic Farming and are involved in training and awareness on organic and natural farming among farmers. The KVKs organized2365 training programs for 68058 farmers during 2021-22 on various facets of organic farming such as creation of awareness, development of knowledge and skills. Produced 53508 quintals of organic inputs namely, bio-agents, bio-pesticides, bio-fertilizers, etc. and provided access to 4.09 lakh farmers for organic cultivation.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Research and Development (R&D) in Agriculture Recommendation Serial No.10

The Committee are happy to note that the National Agricultural Research System of India has produced significant results in terms of mechanization of Agriculture, development of Climate Resilient Technologies, High Yielding Varieties (HYVs) of Seeds, Special Trait Varieties including Bio-fortified and Stress tolerant varieties of Field and Horticulture Crops, etc. thereby helping in ensuring food and nutritional security and increasing farm income by cost minimization and vield maximization. The Committee also note that Department is taking proactive steps to popularize cropping/cultivation and commercialization of these varieties of Field and Horticultural Crops. The Committee have been informed that the Private Sector is also spending, though very low, on Agricultural Research and Development (R&D) in the Country and Department has also implemented Research-Industry Collaboration. The Committee have also been informed that the Department has formulated 'ICAR Guidelines for Utilization of CSR Funds, 2020' to tap funding under Corporate Social Responsibility (CSR) for Agricultural Research. The Committee are of the considered view that there is a need to increase the spending on R&D on Agriculture and Allied Sectors especially in emerging areas of High Value Agriculture - Horticulture, Medicinal Plants, Livestock, Fisheries, etc. The Committee, therefore, recommend the Department to tap all sources of Finance including CSR funding, Private Sector Investments, Collaboration with Private Sector, etc. to increase spending in R&D in Agriculture for realization of sustainable agriculture practices that efficiently meets the objectives of nutritional security and improvement in farm income.

REPLY OF THE GOVERNMENT

Department made efforts to tap funds from all sources: CSR, Private Sector, Collaboration with Private Sector, etc., to increase spending in R&D in Agriculture for agricultural technologies development. With the approval of CSR Guidelines by ICAR, Private companies are now coming forward for investment in R&D in collaboration with ICAR and SAUs. Department under PPP, licensed Public Sector varieties and hybrids through MoAsto more than 500 private seed companies for production and marketing of seeds. ICAR-IARI collaborated with Nurture Farm (UPL) for application and awareness of Pusa Decomposer. ICAR-IISR, Lucknow signed MoA with DCM Sriram Ltd. for research support under CSR. Likewise, CortevaAgriscience has funded Rs. 50 lakhs under CSR for establishing a state of art Climate Controlled Containment Chamber at NBPGR RS, Hyderabad. Department fetched funding from foreignagencies, such as USAID: ICRISAT. Hyderabad; World Agroforestry Centre (ICRAF), Kenya; IWMI, Sri Lanka; CIMMYT, Mexico; IRRI, Philippines; JIRCAS, Japan; ACIAR, Australia; ICARDA; French Natural Research Agency (ANR), France; JSPS, Japan; International Bamboo and Rattan Organization (INBAR) and NERC-GCRE of UKRI, UK Govt; for realizing sustainable agriculture that efficiently meets the goals of nutritional security and increasing the farm income. Department made efforts to develop equipment or technologies in collaborative mode with public/ private sector or perspective entrepreneurs for increasing agricultural mechanization and other agricultural operations/ post-harvest processing in the country. Accordingly, M/s Burgeon Agri., Pvt. Ltd., Nashik, Maharashtra; M/s Pradeep Metals Limited, Navi Mumbai; Food Corporation of India (FCI), Department of Science and Technology (DSIR), M/s Save Grain Solutions Ltd., Pune and M/s Indian Gherkin Exporters Association, Bengaluru provided funds for various projects.

Department collaborated with 13 Private Sector Organization for R&D on horticultural crops, for multilocation trials; M/S Bejo Sheetal Seeds, Jalna; M/S VNR Seeds, Chhattisgarh; M/S Ankur Seeds, Nagpur and M/S Nirmal Seeds, Jalgaon. Collaborative programmes undertaken with Agri-Culture Pvt. Ltd., Tumkur, Karnataka; Agrinos India Pvt. Ltd., Bengaluru; M/S. Ventalyst Business Solutions Private Limited, Bengaluru; M/S Mahindra Agri Solutions Limited, Maharashtra; CII-SERB- Bayer-BASF (Nunhems Seeds Pvt Ltd); M/S Zentron Labs Pvt Ltd, Bengaluru; M/S Kala Biotech, Pune; M/S R. K. Engineering, Pune and M/s Belgaum Minerals, Belgaum, Karnataka.

A total of 224 Research projects are in operation in the Department for Animal Science Research with funding from National, International, Collaborative R&D, Contractual and others. The National Funding agencies like DBT, DST, CZA, FSSAI, ICMR, UPCAR, RKVY, DAHD etc. have provided Rs. 127.48 Crores. While, the International agencies like

CDC, USA; CEH, UK, ILRI, Kenya; ASEAN, Indo-Spain, WRL-FMD, BMGF, DAAD-DST, NRC Protozoan Disease Japan, IAEA, Vienna etc. are funding for about Rs. 18.75 Crores. Research collaborations are with different SAUs, NCDC, IITs, IICT, CCMB etc. with the fund support of Rs. 10.98 crores. Contractual R&D Research have the funding of Rs. 7.99 Crores. Funding from other sources such as CWDB, ITRA, NEC, NABARD, CSB, FFP etc. for R&D work is of Rs. 7.47 crores. Have several MoUs with private sectors. Research project with NGOs like JEEVIKA Bihar, BAIF Prayagraj, NIRPHAD Mathura and Uttarakhand Gramin Vikas Samiti are also being financially supported for organising training programmes to promote livestock and poultry sector in the country. Council also received funds amounting of Rs. 36.15 crores from National and International agencies, CSR funding and other sources for Fisheries Science research.

Department collaborated with M/s Mahindra & Mahindra Pvt. Ltd, IRRI- Philippines, DSIR for addressing the issues of Women in Agriculture. Executed MoU with Department of Water resources and Department of Agriculture, Govt. of Odisha for research, empowering farm women under Climate Resilient Agriculture (OIIPCRA) with a budget of Rs 6.71 crore. Efforts have been initiated for understanding with World Food Programme (India branch) and ILRI for tapping of funds to conduct research for Nutrition Security and improving income of farm women.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Hydroponics

Recommendation Serial No. 11

The Committee note that Hydroponics based Vertical farming concept is to grow crops without soil in different types of soilless media, water and in air also with some basic infrastructure support in single or multilayer for maximizing crop production with efficient use of water and nutrients. The Committee further note that there is vast scope and potential for Vertical Hydroponics based farming both in urban and rural areas of the Country, in view of prevailing biotic and abiotic stresses throughout the country and growing need for high value healthy vegetables for the healthy Indian citizens due to absence of soil borne diseases, maximum crop production with efficient use of water and nutrients and enhanced income due to niche marketing available for vertical hydroponics based crops. However, high initial cost, requirement of indigenous models & simple technology, exposure & training to the farmers are the main challenges in its popularization. The Committee have been informed that ICAR-IARI of the Department undertakes research, education and training on different aspects of protected cultivation Technology including Vertical Hydroponics based Farming. The Committee feel the research on Hydroponics is inadequate so far. The Committee, therefore, recommend the Department to give priority to research for overcoming the challenges - high initial cost, requirement of indigenous models & simple technology, exposure & training to the farmers, so as to popularize the Hydroponics based vertical farming in the Country.

REPLY OF THE GOVERNMENT

The hydroponic vertical farming is new area and development of indigenous simple technology for Indian conditions to reduce high initial cost, exposure and training to the farmers is required for its wider adoption. Research efforts are on for development of low-cost farmer friendly technology.

Department made research efforts on hydroponics/soil less/ protected cultivation technique and accordingly a soilless medium using coconut leaf vermi compost & coir-pith compost amended with bio inoculants for raising seedlings of perennial crops such as areca nut and cocoa and for vegetables too has been formulated. Designed and developed Arka Vertical Garden structure for cultivating vegetables, flowers and medicinal herbs in one square meter. Technology has been developed for seed potato productionand commercialized to 16 Public & Private entrepreneurs across the country. Production technology for soilless culture/hydroponics has been standardized under open and poly house soilless cultivation of Vegetables, spices, flowers and medicinal plants. The Deep Flow technique (DFT) is suitable for leafy vegetables. Vertical frame with Aggregate Wick system for leafy vegetables has been designed and observed 40% more efficient in water use and 40% less power consumption. Hybrid Nutrient Film Technique (NFT) with Vertical frame up to 10-12 feet Wick system for Gerbera, lilium and gladiolus has been designed and observed more water use efficiency and less power consumption. The biggest advantage in this system is 5-6 times more planting density.

Research on cultural operations in vertical farming of orchids for cut flower production has been initiated to accommodate more plants per unit area (5-fold increase) compared to the conventional practice and thereby increasing the returns per unit area. Research on possibility of utilizing Nutrient Film technique has been initiated on medicinal crops such as, brahma (Bacopa monnieri), mint, bhringraj (Eclipta alba), kalmegh (Andrographis paniculate), tulsi, long coriander (Eryngium foetidum), etc.

Trainings and demonstrations on hydroponic/soilless culture technique are organized for farmers and farmers were made aware about the technology and benefits through exhibitions, extension folders and electronic media. In addition, the stakeholders including State agriculture/ horticulture departments are sensitized on the technology through formal talk in international/national conferences and state level seminars.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

CHAPTER - III

OBSERVATIONS/RECOMMENDATIONS WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES

<u>- NIL-</u>

CHAPTER - IV

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

Krishi Vigyan Kendra (KVKs)
Recommendation Serial No. 8

The Committee note that Agricultural Extension Division is carrying out onfarm testing to identify the location specificity of agricultural technologies, frontline demonstration to demonstrate the production potential of different crops, training of farmers and extension personnel on knowledge and skills improvement and creating awareness on improved technologies among farmers of the country through a network of 727 Krishi Vigyan Kendra (KVKs) spread over 750 Districts in the Country. The Committee also note the reply of the Department that as per the decision of the Government one KVK is to be sanctioned in each of the rural Districts. At present there are 727 KVKs in the Country, more than one KVK is reportedly functioning in 92 Districts even though 73 Districts in the Country do not have a single KVK. The Districts having more than one KVK are decided based on a composite index with the average of three indices viz. geographical area, rural population and net sown area. The Committee have been apprised that out of 727 KVKs, all KVKs have instructional farms, however, only 663 KVKs have administrative buildings and 563 KVKs have farmers' hostels. Further, there is a provision 01 Senior Scientist & Head and 6 Subject Matter Specialists (SMSs) in each KVK. However, there are 193 vacant posts of Senior Scientists & Head and 1257 vacant posts of SMSs. The Committee are of considered view that the KVKs should be strengthened without delay and made more productive in terms of extension programmes and outreach to maximize benefit to the farming population in their area. The Committee, therefore, recommend the Department to open at least one KVK in remaining 73 Districts during 2022-23, which do not have a single KVK and in Districts which deserve more than one KVK on the basis of a composite index with the average of three indices viz. geographical area, rural population and net sown area. Sufficient funds may be demanded by the Department in this regard. The Committee also recommend the Department to ensure availability of requisite facilities -Infrastructure, Machinery, Equipments and Tools, Manpower etc. at KVKs for demonstration and training and to promote awareness among farmers about newly developed seeds, machines, agricultural technologies/practices, etc. through demonstrations, exhibitions etc. and also to check the efficacy and result of training provided to farmers at KVKs in order to reap the maximum benefit.

REPLY OF THE GOVERNMENT

Department placed efforts for infrastructure creation in KVKs as per the availability of funds. Provisions have been made for remaining basic infrastructure in the current plan. During last five years, as per requirement, the number of KVKs have been strengthened with other infrastructure facilities like, farm machineries and equipment, Pulses seed hubs, soil testing kits, micro-irrigation systems, etc. At present, there are 731 Krishi Vigyan Kendras (KVKs) in the country and there is a provision of establishment of 14 more KVKs in the country as per EFC.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Comments of the Committee

For comments of the Committee please refer to Para No.1.7 of Chapter I of this Report.

Vacancies at the Institutes of ICAR

Recommendation Serial No. 12

The Committee are dismayed to note that there are large vacancies at the Institutes of ICAR as out of Sanctioned Strength of 5988 Scientific Posts, 10829 Administrative Posts and 6967 Technical Posts, Actual Strength are 4858, 6909 and 4106 respectively at the Institutes of ICAR. The Department has not furnished any specific reason for shortage of manpower at the Institutes of ICAR and has brazenly stated that the vacancies in different cadres/positions of Scientists do not affect functioning and achievement of desired results. However, during the Study Visit of the Standing Committee on Agriculture, Animal Husbandry and Food Processing (formerly Standing Committee on Agriculture) to ICAR-Central Coastal Agricultural Research Institute (CCARI), Goa on 6th September, 2021, ICAR-National Institute of Biotic Stress Management (NIBSM), Baronda, Raipur on 8th September, 2021 and ICARCentral Marine Fisheries Research Institute (CMFRI), Vishakhapatnam on 10th September, 2021, the Committee were apprised inter-alia about shortage of manpower and various Scientific and Administrative posts laying vacant in these Institutes, as challenges faced by the Institutes in their smooth functioning. All these realities reflect very poorly on the functioning of the Department. The Department, during the course of examination, informed that recruitment is a continuous process and the ICAR make out all efforts for filling up of vacant post and is now on a war footing to fill these vacant positions. The Committee, therefore, strongly recommend the Department to fill up the vacant Scientific, Administrative and Technical Posts at Institutes of ICAR expeditiously during 2022-23 for the smooth and more meaningful functioning of the Institutes. The Committee also recommend the Department to initiate recruitment process well in advance taking into account retirement of personnel and assessing the requirements of manpower at the various Institutes instead of delaying recruitment on one pretext or other-resulting in large scale vacancies at various Institutes. The Committee would like to be apprised of the action taken by the Department and the Research Institutes in the matter.

REPLY OF THE GOVERNMENT

Department made all efforts for filling up the vacant positions. The recruitment of scientificpositions is a continuous process and at present recruitment of approx. 220 Scientists is at the interview stage and process for sending the next set of 210 vacancies of scientists to ASRB is in process for filling up the vacant posts of scientists in difficult areas. Further, against vacancy notification Advt. No. 01/2021 for filling up the 89 Research Management positions in ICAR, recruitment process has already been started, wherein 05 posts have already been filled and recruitment for remaining posts is under process. The Recruitment for vacant 763 technical posts (T-1) is in process for which examination was held during February-March 2022. The process of recruitment of 748 vacancies of Technical Assistant (T-3) has been initiated and is under process. The advertisement for the recruitment of 467 posts of Assistants have been notified and exam will be conducted soon. The recruitment examination for 46 vacant posts of Senior Technical Officer (STO) (T-6) has already been conducted and the interview process has been completed.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Comments of the Committee

For comments of the Committee please refer to Para No.1.13 of Chapter I of this Report.

CHAPTER - V

OBSERVATIONS/ RECOMMENDATIONS IN RESPECT OF WHICH FINAL REPLIES OF THE GOVERNMENT ARE STILL AWAITED

Agricultural Education

Recommendation Serial No. 9

The Committee note that Agricultural Education Division coordinates education planning, human resource development and quality reforms of National Agricultural Research System of the country. It strives for maintaining and upgrading the quality and relevance of Higher Agricultural Education through restructuring and reorienting course curricula, accreditation of Agricultural Universities/Institutions and linking it with the release of grants, evolving the grading system, initiation of Ranking of Agricultural Universities etc. The Committee fully agree with the view of the Department that there is a need to revise syllabi of Agricultural Universities to meet the need of Natural, Zero-Budget and Organic Farming, modern-day agriculture, value addition and management. The Committee have been further informed that the Department of Agricultural Research and Education plays an active role in formulation and revision of syllabi of Agricultural Universities of the country and the syllabus has been made uniform across the country. The Syllabus of Undergraduate courses is revised/ updated as per requirements through constitution of Deans' Committee every 10 years. Sixth Deans' Committee has been constituted for the necessary curriculum modification as per recommendation and implementation of the National Education Policy, 2020 (NEP 2020) in Agricultural Universities. Broad Subject Matter Area Committees (BSMA) finalized the syllabi for 79 Disciplines of PG and Ph.D. Courses as per the Provisions of the NEP 2020. Further, the syllabus of Organic farming has been implemented in both UG, PG and Ph.D. Curricula and the Committee has been constituted for the introduction of Natural farming in both UG and PG curricula. The said Committee will draw the guidelines and framework for the course content. The Committee feel there is an imperative need that the Department should expedite formulation of guidelines and framework for the course content of Natural Farming for introduction in both **UG and PG Curricula.**

REPLY OF THE GOVERNMENT

Department has constituted a committee with the approval of Hon'ble Agriculture Minister on 31 March 2022 for developing syllabus & curricula of natural farming in PG and UG programmes. The syllabus shall be integrated into the existing Undergraduate courses at State Agricultural Universities, Deemed Universities, Central Agricultural Universities and

Central Universities with Agricultural Colleges. The recommended syllabus shall be implemented from the next academic session in the agricultural universities.

[Ministry of Agriculture and Farmers Welfare (Department Agricultural Research and Education) F.No.7(3)/2022, dated 06 June 2022]

Comments of the Committee

For comments of the Committee please refer to Para No.1.10 of Chapter I of this Report.

NEW DELHI; <u>6 December, 2022</u> 15 Agrahayana, 1944 (Saka) P.C. GADDIGOUDAR
Chairperson
Standing Committee on Agriculture, Animal
Husbandry and Food Processing

ANNEXURE

Standing Committee on Agriculture, Animal Husbandry and Food Processing (2022-23)

Minutes of the Second Sitting of the Committee

The Committee sat on Tuesday, the 15th November, 2022, from 1100hrs. to 1245 hrs. in Committee Room No. 3, Block A, Extension to Parliament House Annexe, New Delhi.

PRESENT

Shri P.C. Gaddigoudar - Chairperson

Members Lok Sabha

- 2. Shri A Ganeshamurthi
- 3. Shri Kanakmal Katara
- 4. Shri Devji Mansingram Patel
- 5. Shri Pocha Brahmananda Reddy
- 6. Shri Devendra Singh *alias* Bhole Singh
- 7. Shri Ram Kripal Yadav

Rajya Sabha

- 8. Shri Masthan Rao Beeda
- 9. Dr. Anil Sukhdeorao Bonde
- 10. Shri S.Kalyansundaram
- 11. Shri Kailash Soni
- 12. Shri Randeep Singh Surjewala
- 13. Shri Ram Nath Thakur

Secretariat

1. Shri Shiv Kumar - Additional Secretary

2. Shri Naval K. Verma - Director

Shri Uttam Chand Bharadwaj
 Shri Prem Ranjan
 Shri N. Amarathiagan
 Additional Director
 Deputy Secretary
 Under Secretary

2. At the outset, the Chairperson welcomed the Members to the Sitting of the Standing Committee and informed them that as directed by the Hon'ble Speaker,

LAARDIS will make a presentation before the Committee so as to make the Members aware of the new initiatives taken towards capacity building for augmentation of research, new initiatives in the Parliament Library, creating awareness about the rich resources/repositories of the Parliament Library, training programmes by PRIDE etc. Thereafter, Officers of LAARDIS made their Power Point Presentation.

3. The Committee then took up for consideration the following Action Taken Reports:

*(i)	XXXX	XXXX	XXXX	XXXX	XXXX
*(ii)	XXXX	XXXX	XXXX	XXXX	XXXX

(iii) Draft Action Taken Report on Action-taken by the Government on the Observations/Recommendations contained in the Thirty-Eighth Report of the Committee on 'Demands for Grants (2022-23)', pertaining to the Ministry of Agriculture & Farmers Welfare (Department of Agricultural Research and Education);

*(iv)	XXXX	XXXX	XXXX	XXXX	XXXX
*(v)	XXXX	XXXX	XXXX	XXXX	XXXX
*(vi)	XXXX	XXXX	XXXX	XXXX	XXXX

4. After some deliberations, the Committee adopted the Draft Action Taken Reports without any modifications and the Committee authorised the Chairperson to finalise and present these Reports to the Parliament.

[*] 5.	XXXX	XXXX	XXXX	XXXX	XXXX
*6.	XXXX	XXXX	XXXX	XXXX	XXXX
*7.	XXXX	XXXX	XXXX	XXXX	XXXX
*8.	XXXX	XXXX	XXXX	XXXX	XXXX

The Committee then adjourned.

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^{*}Matter not related to this Report.

Appendix

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE OBSERVTIONS/RECOMMENDATIONS CONTAINED IN THE THE THIRTY-EIGHTH REPORT (17th LOK SABHA) OF STANDING COMMITTEE ON AGRICULTURE, ANIMAL HUSBANDRY AND FOOD PROCESSING (2021-22)

(Vide Para 4 of Introduction of the Report)

(i)	Total number of Recommendations	12
(ii)	Recommendations/Observations which have been Accepted by the Government Para Nos. 1, 2, 3, 4, 5, 6, 7, 10 and 11	
	Total	09
	Percentage	75.00%
(iii)	Recommendations/Observations which the Committee Do not desire to pursue in view of the Government's replies Para No. NIL	
	Total	00
	Percentage	00.00%
(iv)	Recommendations/Observations in respect of which replies	
	of the Government have not been accepted by the Committee	
	Para Nos. 8 and 12	
	Total	02
	Percentage	16.67%
(v)	Recommendations/Observations in respect of which Final replies of the Government are still awaited Para Nos. 9	
	Total	01
	Percentage	08.33%
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