STANDING COMMITTEE ON AGRICULTURE (2008-2009)

FOURTEENTH LOK SABHA

MINISTRY OF AGRICULTURE (DEPARTMENT OF AGRICULTURAL RESEARCH AND EDUCATION)

DEMANDS FOR GRANTS (2008-09)

{Action Taken by the Government on the Observations/ Recommendations contained in the Thirty Eighth Report of the Standing Committee on Agriculture (2007-2008)}

FORTY THIRD REPORT



LOK SABHA SECRETARIAT NEW DELHI

December, 2008/Agrahayana, 1930 (Saka)

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Presented to Lok Sabha on 18.12.2008.

Laid in Rajya Sabha on 18.12.2008.



LOK SABHA SECRETARIAT NEW DELHI

December, 2008/Agrahayana, 1930 (Saka)

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<CONTENTS>

	CONTENTS>	PAGE
COMPOSIT	ION OF THE COMMITTEE	(iii)
INTRODUC	TION	(v)
CHAPTER I	Report	1
CHAPTER II	Observations/Recommendations which have been accepted by the Government	37
CHAPTER II CHAPTER IV	Committee do not desire to pursue in view of the Government's replies	51
	of which replies of the Government have not been accepted by the Committee	52
CHAPTER V	Observations/Recommendations in respect of which final replies of the Government are still awaited	63
	APPENDICES	
1.	Minutes of the sitting of the Committee	
	held on 16 December, 2008.	72
II.	Analysis of Action Taken by the Government on the Recommendations contained in the Thirty Eighth Report of the Standing Committee on Agriculture (2007-2008) (14 th Lok Sabha)	74

COMPOSITION OF THE STANDING COMMITTEE ON AGRICULTURE (2008-2009)

[®] Shri Mohan Singh – Chairman MEMBERS

LOK SABHA

- 2. Shri Ranen Barman
- 3. Shri Anil Basu
- 4. Shri Manoranjan Bhakta
- 5. Shri Girdhari Lal Bhargava
- 6. Shri Khagen Das
- Shri Dharmendra
- 8. Shri Gadakh Tukaram Gangadhar
- Shri Deepender Singh Hooda
- 10. Smt. Kalpana Ramesh Narhire
- 11. Shri Mahendra Prasad Nishad
- Shri Prabodh Panda
- Shri Raosaheb Danve Patil
- 14. Smt. Rupatai Diliprao Nilangekar Patil
- 15. Shri K.J.S.P.Reddy
- 16. Shri Y.S.Vivekananda Reddy
- 17. Shri Chandra Bhushan Singh
- Shri M.P.Veerendra kumar
- Shri Baleshwar Yadav
- *20. Vacant
- [#]21. Vacant

RAJYA SABHA

- 22. Shri Ishwar Singh
- Smt. Mohsina Kidwai
- Shri Vikram Verma
- Shri Vinay Katiyar
- Dr. Janardhan Waghmare
- 27. Shri Sharad Anantrao Joshi
- 28. Prof. M.S.Swaminathan
- Shri M.Rajasekara Murthy
- \$30. Shri Kore Prabhakara
- [%]31. Vacant

[®] Shri Mohan Singh has been appointed Chairman of the Committee by Hon'ble Speaker, w.e.f. 5 December, 2008 vice Prof. Ram Gopal Yadav elected to the Rajya Sabha, w.e.f. 14.11.2008.

Shri Kuldeep Bishnoi ceased to be the Member of this Committee owing to disqualification under 10th Schedule by Hon'ble Speaker w.e.f. 10th September, 2008.

^{*} Shri Hari Rama Jogaiah ceased to be the Member of the Committee owing to his Resignation from Lok Sabha w.e.f. 6 November, 2008.

Shri Kore Prabhakara was nominated by the Chairman, Rajya Sabha, to be the Member of the Committee w.e.f. 1st September, 2008.

Shri Harish Rawat ceased to be the Member of the Committee due to retirement from Rajya Sabha w.e.f. 25.11.2008.

SECRETARIAT

Shri S.K.Sharma
 Shri A.K.Singh
 Smt. Veena Sharma
 Shri N.S.Hooda
 Shri Anil Kumar
 Secretary
 Joint Secretary
 Director
 Deputy Secretary
 Senior Executive Assistant

INTRODUCTION

I, the Chairman, Standing Committee on Agriculture (2008-2009) having been authorized

by the Committee to submit the Report on their behalf, present this Forty Third Report on Action

Taken by the Government on the Observations/Recommendations contained in the Thirty Eighth

Report of the Standing Committee on Agriculture (2007-2008) (Fourteenth Lok Sabha) on

Demands for Grants of the Ministry of Agriculture (Department of Agricultural Research and

Education) for the year 2008-2009.

2. The Thirty Eighth Report of the Standing Committee on Agriculture (2007-2008) on

Demands for Grants (2008-2009) of the Ministry of Agriculture (Department of Agricultural

Research and Education) was presented to Lok Sabha on 16.04.2008 and laid in Rajya Sabha on

the same day. The Ministry of Agriculture (Department of Agricultural Research and Education)

was requested to furnish action taken replies of the Government to the recommendations

contained in the Thirty Eighth Report. The replies of the Government to all the

recommendations contained in the Report were received.

3. The Committee considered the action taken replies furnished by the Government at their

sitting held on 16.12.2008, approved the draft comments and adopted the Forty Third Report.

Minutes of the sitting are placed at Appendix I.

4. An analysis of the Action Taken by the Government on the

Observations/Recommendations contained in the Thirty Eighth Report (14th Lok Sabha) of the

Committee is given in Appendix-II.

NEW DELHI;

16 December, 2008

25 Agrahayana, 1930(Saka)

MOHAN SINGH Chairman,

Standing Committee on Agriculture.

(v)

CHAPTER I

Report

This Report of the Committee on Agriculture deals with the action taken by the Government on the recommendations contained in the Thirty Eighth Report (Fourteenth Lok Sabha) of the Standing Committee on Agriculture (2007-2008) on Demands for Grants (2008-2009) of the Ministry of Agriculture (Department of Agricultural Research & Education) which was presented to the Lok Sabha and laid in the Rajya Sabha on 16.04.2008.

- 1.2 The Action taken replies have been received from the Ministry of Agriculture (Department of Agricultural Research & Education) in respect of all the 21 recommendations contained in the Report. These have been categorised as under:
 - (i) Observations/Recommendations that have been accepted by the Government (Chapter II of the Report)
 - Recommendation Sl. Nos. 8, 9, 12, 14, 15, 16, 17, 19 and 20 (Total-09);
 - (ii) Observations/Recommendations which the Committee do not desire to pursue in view of the Government's action taken reply (Chapter III of the Report)
 - Recommendation Sl. No. 10 (Total-01);
 - (iii) Observations/Recommendations in respect of which action taken replies of the Government have not been accepted by the Committee (Chapter IV of the Report)
 - Recommendation Sl. Nos. 1, 2, 3, 4, 5, 6, 13 and 18 (Total-08);
 - (iv) Observations/Recommendations in respect of which final replies of the Government are still awaited (Chapter V of the Report)
 - Recommendation Sl. Nos. 7, 11 and 21 (Total-3).
- 1.3 The Committee desire that the final replies in respect of recommendations for which only interim replies have been given by the Government, should be furnished to the Committee expeditiously.

1.4 The Committee will now deal with the action taken by the Government on some of the recommendations in the succeeding paragraphs.

(Recommendation No. 1)

Need for increasing DARE's allocation equivalent to 1 to 2 percent of AGDP

1.5 The Committee had noted that the Department of Agricultural Research and Education had been allocated Rs.12,023 crore as the total XI Plan outlay against the proposed XI Plan outlay of Rs.12,176.40 crore. The proposed outlay for the XI Plan is even Rs.3,823.60 crore less than the outlay proposed by them for the X Plan which was Rs.16,000 crore. The Planning Commission's constituted XI Plan Working Group on Agricultural Research and Education had proposed an outlay of Rs.31,672 crore for DARE/ICAR.

The Committee had always been requesting year after year for an increase in the allocation equivalent to 1 to 2 per cent of agricultural GDP for the conduct of research in this most important sector but the request seems to have fallen on deaf ears. The Committee were pained to observe that the Planning Commission and the Ministry of Finance have not so far given any proper attention to the recommendations of the Parliamentary Standing Committee on Agriculture in this regard.

The Committee, therefore, strongly and in unequivocal terms recommended that the Planning Commission must provide higher allocation equivalent to 1 to 2 percent of AGDP as recommended by them in their earlier Reports. However, this must be accompanied by accountability in terms of practical results of value to overcome the prevailing technology fatigue. Additional Funds may be earmarked for the suggestions made by the Committee in this Report.

1.6 The Government, in their Action Taken reply have stated as follows:-

"The Department had restricted its XI Plan proposal to Rs.12176.40 crore in the background of the various guidelines circulated by Planning Commission which were to be observed while formulating XI Plan proposals of DARE/ICAR. The Department was asked to formulate three scenarios in respect of the proposals of XI Plan outlays i.e.

reflecting an increase of 5% per annum with respect to the terminal year of X Plan; and similarly other two scenario with an increase of 10% per annum and 15% per annum, respectively. Accordingly the Department did not project higher financial requirement. The XI Plan working group constituted by Planning Commission itself had recommended Rs.31,672 crore as XIth Plan outlay for DARE/ICAR but the Planning Commission provided only Rs.12,023 crore only.

The recommendation of the Committee that the Department should be provided higher allocation equivalent to 1 to 2 percent of AGDP was forwarded to Planning Commission, which responded that "For the 11th Five Year Plan an amount of Rs.12,023 crore has been allocated to the ICAR. The allocation was entirely made on the recommendation of DARE/ICAR. In this regard, as mentioned earlier, DARE/ICAR was asked by the Planning Commission to make projections within the parameters set by them.".

COMMENTS OF THE COMMITTEE

1.7 The Committee strongly deplore the tendency and the working style of the DARE/ICAR that instead of projecting their actual budgetary requirements, DARE succumb to the arm twisting method of Planning Commission in which first it impose arbitrary restrictions through their guidelines asking the Department to make projections within the parameters set by them, and later on when the Parliamentary Standing Committee on Agriculture point out every year in their scrutiny of DFG Reports pertaining to the Department that the Planning Commission has always been ignoring the recommendations of the Committee to provide 1 to 2 percent of AGDP to the Department and actually has given very less allocations, then, it responds that the allocation was made on the recommendation of DARE/ICAR.

The reply of the Department also does not mention the exact amount of each of the three scenarios under reference and which scenario out of the three scenarios, viz. XI Plan outlays proposals reflecting an increase of 5%, 10% and 15% per annum, respectively, has been finally approved by the Planning Commission.

The Committee, therefore, are not satisfied with the reply of the Department and the routine game being played by the Planning Commission as mentioned above and advice the Department to always insist on the actually needed budgetary outlay projections rather than accepting the lowest scenario projections.

(Recommendation No. 2)

Insufficient allocation to DARE in 2008-09

1.8 The Committee had noted that the Department was given Rs.1,760 crore during 2008–09 against the proposal of Rs.2646.79 crore. The outlay of this Department during 2007-08 was Rs.1,620 crore against the proposal of Rs.1,945.50 crore. The percentage of increase in Plan allocation made for 2008-09 over the year 2007-08 was 8.64 per cent.

The Committee also noted note that the increase in the cost of inputs-machinery, raw-material, maintenance and other running research expenses - had been generally more than the annual inflation. In real sense, the Budgetary Allocation may not allow the Department to address all research issues adequately as had been confirmed by the Department.

In Committee's opinion, the required real break-through for increasing the agricultural production and productivity to achieve the set targets of agro-socio-economic development during the XI Plan could only be achieved by actual agrarian research work and by the quickest possible dissemination of relevant information to the people engaged in agriculture and allied activities. Therefore, the proposed targets of agro-socio-economic development should be directly proportionate to the plan outlay for research and educational activities of DARE/ICAR. But, unfortunately, the right proportion between these two factors was not visible in the funds allocated to DARE/ICAR and the Committee strongly felt that positively upward investment in agrarian R&D of ICAR was most essential requirement, if the proposed growth target was to be achieved in time.

The Committee, therefore, strongly recommended that the DARE/ICAR should be provided with Rs.2646.79 crore by the Planning Commission and the Ministry of Finance for the year 2008-09 as per their original proposal.

1.9 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission responded that "Regarding insufficient allocation in 2008 – 09, it is pertinent to mention that the resources were allocated keeping in view of the other sectors' requirements."

COMMENTS OF THE COMMITTEE

1.10 The Committee are not satisfied with the response of the Planning Commission that insufficient allocation to DARE/ICAR in 2008-09, were allocated keeping in view of other sectors' requirement.

The Committee, therefore, reiterate that the DARE/ICAR should be provided with Rs.2646.79 crore by the Planning Commission and Ministry of Finance for the year 2008-09 as per their original proposal as they are responsible for R&D in agriculture and allied sectors and R&D require more funds as compared to the normal schemes of the Government.

(Recommendation No. 3)

Urgent need to provide the status of Non-lapsable Funds to Budgetary Allocations of DARE/ICAR

1.11 The Committee noted that the Central Non-lapsable Fund Pool was created by the Government for the welfare of the North-Eastern States. All the Ministries/Departments were directed to earmark 10% of their respective allocation under the Major Head 2552 – lump sum provision for projects/schemes in NE & Sikkim, every year and the unspent amount under this Major Head does not lapse at the end of the financial year and remains available for its usage for the same cause.

The Committee were of the considered view that this special treatment/privilege given to North-Eastern States & Sikkim should be extended to all the schemes/projects of DARE/ICAR being implemented in other States/UTs as the similar agro-socio-economic and climatic conditions and topography of agricultural land existing in North-Eastern States, also existed in most of the other States/UTs.

The Committee strongly recommended that since 70% of our country's population is directly engaged in agricultural & allied activities and produce the food for themselves and for other 30% population, therefore, the Government and their appraisal agencies should implement the non-lapsable fund strategy for DARE/ICAR from this year onward, for anything can wait but agriculture cannot wait for want of adequate funds and extending this provision to DARE/ICAR is going to be a real breakthrough in finding a remedy for a perennial vicious imbalance of demand and supply of funds in which every year more funds required/demanded by the Department but lesser funds are allocated by the Planning Commission/Ministry of Finance.

1.12 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission/ Ministry of Finance. The Planning Commission responded that "On the status of non-

lapsable funds to budgetary allocation to DARE / ICAR on the ground that 70% of our country's population is directly engaged in agriculture and allied activities and produce the food for themselves and also rest of the 30% population. In this context, it is to be mentioned that irrigation, road connectivity and transport, energy, land reforms and other basic infrastructure have a lion share in enhancing foodgrain production. Whereas, the ICAR's role is limited to technology innovations."

COMMENTS OF THE COMMITTEE

1.13 The Committee are not satisfied with the reply of the Government/Planning Commission that irrigation, road connectivity and transport, energy, land reforms and other basic infrastructure have a lion share in enhancing fooodgrain production. Whereas, the ICAR's role is limited to technology innovations.

The Committee are of the clear view that since irrigation, energy, road connectivity and transport, land reforms and other basic infrastrucure are a must for enhancing agrarian and allied sectors activities and growth and should be reasonably funded by the Government/Planning Commission but cannot be compared with ICAR 's role in agricultural R&D and cannot be the reason for less/under funding of ICAR merely on the reasoning the ICAR's role is limited to technology innovations for the reasons that without technological innovations/breakthrough the real agrarian growth to feed the ever-growing human-animal population in the country cannot be achieved. Hence, funding of irrigation, energy, other basic infrastructure, etc. should be treated as complementary to agricultural growth but at no point of time their development should be at the cost of ignoring the much needed developing of R&D activities of DARE/ICAR.

The Committee, therefore, reiterate their earlier recommendation that anything can wait but agriculture cannot wait for want of adequate funds and extending the provision of non-lapsable funds to DARE/ICAR is going to be a real breakthrough in finding a remedy for a perennial vicious imbalance of demand and supply of funds in which every year more funds required/demanded by the Department but less funds are allocated by the Planning Commission/Ministry of Finance.

(Recommendation No. 4)

Delays in releasing of RE/BE by the Department to their respective Institutes/NRCs/PDs

1.14 The Committee noted that RE Plan & Non-Plan (2007-08) was reported to have been received from MoF on 4.1.2008. ESM (SMD) was communicated RE (Plan) on 8.2.2008 by the Department, i.e., after 34 days of receiving the same from MoF. Similarly, Education and Extension (SMDs) had been communicated RE(Plan) after 18 and 21 days, respectively, from the date of receiving from MoF, viz., 4.1.2008, while 4 SMDs out of 9, have been communicated only after 6 days of receiving from MoF.

The Committee noted that during Evidence of the Representatives of MoA(DARE), MoF and Planning Commission before this Committee, held on 22.11.2001, the then, Secretary(DARE) had categorically pointed out about the procedural delays in receiving RE from MoF which did not allow the Department to utilize the scarce financial resources optimally

and huge unspent amounts/balances remain. Similar views/suggestions were extended by the Department in a written reply to the specific points raised by the Committee about the entire budgetary procedure and practices being followed by the Department and if any meaningful change/remedies required to be in place. But ironically, now the Department in reply to similar points about the procedural budgetary delays stated that 'there has been no procedural delay and the present procedure is working well.'

The Committee were of the view that the above volte-face regarding budgetary procedural delays and meaningful changes required, was an actual turnaround engineered by the Department in a vain attempt to deviate the Committees' attention from the actual problem of late releasing of funds from MoF or the Department to the actual end-users, i.e., concerned institutes/NRCs/PDs of ICAR.

The Committee, therefore, deplored the tendency of the Department to give hollow assurances every year that they have been making best efforts to make the RE/BE funds available to the concerned institutes within a week, rather they are taking about 34 days time to make the RE available to the respective institutes.

The Committee strongly recommended that the Department should take less than a week's time to release the funds to all the concerned institutes/NRCs/PDs from the date of receipt of funds from MoF for optimal utilisation of the scarce funds by the concerned institutes.

1.15 The Government, in their Action Taken reply have stated as follows:-

"The concerns of the Committee have been brought to the notice of all the Subject Matter Divisions of DARE / ICAR. It may further be highlighted that after receiving BE / RE communications from Planning Commission and Ministry of Finance respectively, the Department has to undertake a number of processes before finalizing the institutes / NRCs / PDs wise allocations. This involves first distributing the total outlay sector-wise and subsequently after getting it approved from Competent Authority, it is informed to concerned Subject Matter Divisions. Thereafter, depending upon the total budget at their respective disposal, the each Subject Matter Division distribute it for

each of the concerned institute / NRC / PD, etc. after prioritising and assessing the realistic requirement of each constituent unit. This distribution also needs approval of Competent Authority and even after this, the SMDs further distribute the institute / NRC / PD wise fund into various heads of expenditure (pay & allowances, TA, contingencies, HRD, equipment, works, library, etc.). This final list of institute-wise /

head-wise allocations is subsequently forwarded to the Finance Division for releasing the funds (BE / RE)."

COMMENTS OF THE COMMITTEE

1.16 The Committee are not satisfied with the reply of the Department as the reply is hardly convincing and seems to be exaggerating the reasoning/justification for taking about 34 days' time to release the funds to all the concerned institutes/NRCs/PDs from the date of receipt of funds from MoF for optimal utilisation of scarce funds by the concerned institutes.

The Committee are of the view that when 4 SMDs of the 9 SMDs could have been communicating funds to concerned institutes only after 6 days of receiving communication in this regard from MoF, why cannot the other SMDs, namely, Education, Extension and ESM do follow the same healthy and desirable practice which is in tune with recommendation of the Committee that the Department should take less than a week's time to do so rather than taking 18, 21 and 34 days' time, respectively. Morever, the steps of the process involved before actually releasing the funds to institutes which the Department has enumerated in their reply are as old as the Department itself and taking the decision regarding prioritising and assessing the realistic requirement of each constituent unit needed to be done before final funds are released from MoF, i.e., at the time of budgetary proposals being finalised as the actual increase in funds being provided by Planning Commission/MoF, seeing the past trends, is ranging from 8% to 20% and it should not take more than a week's time to decide Plan and Non-Plan allocations to each of the constituent units by the respective SMDs as rigorous exercise of deciding the budgetary requirement of each institute/head-wise allocations already have been done since August of every year and after the final allocations are received from MoF should be a mere formality which should be done expeditiously.

The Committee, therefore, reiterate their earlier recommendation that the Department should take less than a week's time to release the funds to all the constituent units.

(Recommendation No. 5)

Denial of necessary wherewithal for setting up state-of-the-art facilities to meet the emerging new challenges

1.17 The Committee had been informed that the DARE/ICAR had a number of institutions/laboratories, which were more than thirty years old. It was felt necessary that a one time catch-up grant may be sought from the Planning Commission so that the requirement of renovation of old infrastructure and up-gradation/replacement of obsolete equipment could be met.

The Department projected a requirement of Rs.1000 crore as One Time Catch up Grant for the entire Tenth Plan Period. The Planning Commission did not indicate any provision for the same while communicating the Tenth Plan outlay of the Department, which was pegged at Rs. 5368 crore. Thereafter, the Department consistently proposed a requirement of Rs.200 crore as Catch up Grant in each year i.e. 2002-03, 2003-04 and 2004-05. The response of the Planning Commission to these proposals was 'the catch up grant which was meant for upgrading the research facility of ICAR's institutions had already been taken care of while approving the proposals during Tenth Five Year Plan'. Due to the clear-cut stand taken by Planning Commission on this issue, the Department did not pursue the matter further.

The Planning Commission in their guidelines for formulation of XI Five Year Plan had indicated that in the Plan budget critical repair and maintenance upto 15% of the plan budgetary support could be included.

The Committee noted that the Department's fund requirements, based on activities and programmes, were said to be projected in totality, thus need for catch up grant were also addressed in their projection, however, there was a pronounced gap of Rs.886.79 crore between the projected/proposed amount by DARE/ICAR and the amount allocated to them by the Planning Commission/Ministry of Finance. The Department had proposed/projected an amount of Rs.2646.79 crore and they got Rs.1760.00 crore as BE 2008-09.

The Committee were of the considered view that denial of long-felt and essentially needed One-Time Catch up grant to DARE had hamstrung our agricultural research institutes and their R&D activities as the output could have been much better in case their projected requirement of Rs.1000 crore during Xth Plan was provided to them for replacement of old machinery and equipment and for setting up state-of-the-art facilities to meet the emerging new challenges.

The Committee had strongly deplored the tendency of the Planning Commission and the Ministry of Finance for imposing drastic cuts as high as upto 35 to 40 per cent on the amount projected/demanded by the Department as per their pressing needs as in the instant case, the denial of Rs.886.79 crore during 2008-09 would not allow the Department to address the needs to be fulfilled from one time catch-up grant out of Rs.1760.00 crore allocated to them as BE 2008-09.

The Committee desired a clarification from the Planning Commission as to how they can expect the Department to follow the Guidelines of the Planning Commission that in the Plan Budget critical repair and maintenance upto 15% of the Plan budgetary support could be included by the Government and on the other hand, they themselves had imposed a cut of about 35% or so on the projected/proposed amount of the Department year after year.

The Committee strongly recommended that the Planning Commission and the Ministry

of Finance should provide much needed one time catch up grant as per the latest requirement during the XIth Plan or at least provide Rs.886.79 crore more to the Department during 2008-09 so that the projected need for catch up grant which was addressed in their projected amount of Rs.2646.79 crore, was granted to them. Immediately, in the Budget of 2008-09 itself, an additional sum of Rs.100.00 crore may be provided to IARI, New Delhi, particularly for improving farm infrastructure with reference to irrigation.

1.18 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission responded that "For providing one time catch up grant i.e. Rs. 886.79 crore for renovation of infrastructure; the Planning Commission is in support of creation / renovation of ICAR institutes as per laid down procedure"

The guidelines of Planning Commission circulated in October 2006 indicated that in the Plan budget, critical repair and maintenance upto 15% of the plan budgetary support can be included. The Department has been able to address the modernization of infrastructure and replacement of obsolete equipment / research facilities to the extent possible through its Annual Plan allocation."

COMMENTS OF THE COMMITTEE

1.19 The Committee deplore the tendency of the Planning Commission once again, by which they pretended to support the genuine financial requirements of one time catch up grant to the tune of Rs.886.79 crore as per recommendation of the Committee to DARE/ICAR in theory but with the condition of laid down procedure and themselves had put a restriction of 15% amount to be included in the total Plan outlay for modernization of infrastructure and replacement of obsolete equipment/research facilities through its Annual Plan allocation. And, in order to fit in this condition of 15% of total Annual Plan Allocation, Annual Plan Allocation has to be about Rs.5906.66 crore rather than what the Department was given, i.e., Rs.1760.00 crore as BE(2008-09) against a demand of Rs.2646.79 crore. Therefore, it is obvious that Planning Commission only theoretically support the schemes of the ICAR but practically provides too less an amount than the actually demanded every year.

The Committee, therefore, reiterate that the Department may be provided at least Rs.886.79 crore during 2008-09 at RE stage.

(Recommendation No. 6)

The Planning Commission disagreed to provide Rs.1130 crore to DARE/ICAR under the National Food Security Mission (NFSM)

1.20 The Committee had noted that the National Food Security Mission a centrally sponsored scheme has been launched from 2007-08 with an objective to enhance the production of rice, wheat and pulses by 10, 8 and 2 million tones respectively during the 11th Plan period.

ICAR is involved in providing technical backstopping in this project in terms of providing details about the newly released varieties/hybrids along with the production and protection technologies in implementation of this scheme. Further, ICAR is also involved in the production of breeder seed as per requirement. The Council has also been involved in various monitoring implementation Committees of the project.

Although DARE/ICAR has allotted sufficient funds to address various researchable issues related to rice, wheat and pulses during XI Plan, as a compliment to further augment the research infrastructure and programme, they have submitted a scheme under the National Food Security Mission entitled Mini Mission I – Wheat, Rice and Pulses for Rs.1130 crore to the Planning Commission. However, no additional allocation under this component was agreed to.

The Planning Commission's reasoning for not agreeing to the Department's demand was that more than Rs. 385 crores had already been provided for components related to ICAR and ICAR/DARE's regular allocation which itself should be able to take care of the requirement of National Food Security Mission (NFSM).

The Committee again strongly deplored the tendency of the Planning Commission to give hollow promises year after year that the proposals/initiatives of the Department in the form of SFC/EFC/CCEA would be considered favourable to provide need based allocation. As in the instant case, the DARE/ICAR had submitted a scheme under the NFSM entitled Mini Mission I – Wheat, Rice and Pulses for Rs.1130 crore to the Planning Commission and in turn, rather than favourably considering the scheme, the Planning Commission had extended the reason for not agreeing to it.

The Committee were unable to comprehend as to why the Planning Commission was determined to deter the desired and required better pace of agrarian R&D for which the ICAR has been entrusted with the responsibility. Moreover, expectations of the millions of people from DARE/ICAR to usher India into a Second Green Revolution by providing total food, feed and fodder security for the present and future times will continue to lurk in the dark for want of favourable consideration by the Planning Commission/Ministry of Finance of the schemes/initiatives submitted by DARE/ICAR.

The Committee, therefore, strongly recommended that ICAR should be provided the additional amount of Rs.1130 crore for

their scheme entitled Mini Mission I – Wheat, Rice and Pulses under NFSM in the overall interest of the nation's food security.

1.21 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission in its reply stressed that the NFSM was being implemented in the potential area by utilizing existing technology. However, the department of Agriculture & Cooperation, (DAC) which is implementing this scheme, asked for the incorporation of researchable issues in the revised EFC document of NFSM. In pursuance thereof, the department has submitted a projection of Rs 1130 crore to DAC."

COMMENTS OF THE COMMITTEE

1.22 The Committee are not satisfied with the reply of the Government, as nothing concrete has been mentioned in their reply as to whether Planning Commission is going to provide Rs.1130 crore to DARE through DAC as submitted by DARE or they will not provide anything against this projection.

The Committee, therefore, reiterate that the Department should be provided by the Planning Commission/MoF an additional amount of Rs.1130.00 crore for their scheme entitled Mini-Mission I – Wheat, Rice and Pulses under NFSM in the overall interest of nation's food security.

(Recommendation No. 7)

Urgent need to set up a high-level committee of scientists and practising farmers

1.23 The Committee were of the opinion that technology had been and would be the prime mover of change not only in our country, but everywhere in the world.

The Committee noted that the nation was passing through technology fatigue, stagnation and decline in productivity/yield and a number of related issues were bracketing India into agrarian crisis which the nation can ill-afford to neglect merely for want of adequate timely action from DARE/ICAR.

The Committee, therefore, recommended that the Prime Minister as head of Agriculture Coordination Committee and Union Minister of Agriculture being President of ICAR should set up a High-level Committee of Scientists and practising farmers from different parts of the country to suggest methods of overcoming their problems, technology fatigue, to bridge the gap between potential and actual yield and agrarian crisis the country is facing. The Committee further recommended that Special Cadre

of Agriculture Scientists for Agricultural Research in North Eastern States including Sikkim may be created so that the Research Institute of ICAR in that area do not suffer from the malady of shortage of scientists.

1.24 The Government, in their Action Taken reply have stated as follows:-

"ICAR has an All India cadre of scientists called Agriculture Research Service (ARS). Posts at entry level are filled on the basis of All India competitive examination conducted by the Agricultural Scientists Recruitment Board (ASRB). Vacancies in higher grades of scientists i.e. Senior Scientist and Principal Scientist at different institutes are advertised by the ASRB indicating the name of the institute in the

advertisement and selection is made on the basis of interview. ICAR has following institutions in the NE Region:

- ICAR Research Complex for NEH Region, Barapani with a centre in each state of NEH Region
- 2) National Research Centre (NRC) on Mithun
- 3) NRC on Pig
- 4) NRC on Orchid
- 5) NRC on Yak

Candidates selected on the basis of Agricultural Research Services examination are posted to the institutes including those situated in NE region. According to in-built provision in the policy, the scientists who have spent a specified period in this region are eligible for transfer to institutes outside the NE region.

In addition to regular batches of ARS, ICAR has conducted a special recruitment drive to fill up vacant posts in NE Region as a result of which 53 scientists have been posted.

ICAR scientists posted in NE Region are also eligible for financial incentives for working in this region in accordance with Govt. of India policy on the subject. These incentives coupled with the provision under which they can seek transfer to outside the region after a specified period, gives an impetus to the newly recruited scientists to work in this region.

Interaction for new ideas, capitalizing on innovations from a wider canvas and development of first rate human resource is already in progress. The research capabilities of the institutes in the NE region have progressed considerably and the

ICAR has consistently provided all possible technologies and resources to fulfil the needs of these institutes. The scientists at the beginning of their career are attracted to

work at such institutions in the interest of their own professional career.

As regards the perception that incidence of scientific posts lying vacant in NE region is higher than in rest of the country, the fact is that the proportion of scientific posts lying vacant in NE region is nearly same as in rest of the country.

As regards the suggestion to create a special cadre of Agricultural scientists for NE states including Sikkim, it is stated that an isolated cadre for NE region may not be viable due to following reasons:

- (i) A person can be motivated to serve in difficult areas for some time provided he knows that after a specified period he would be eligible for a posting outside the region. Among those who qualify the ARS examination there may be few takers for an isolated cadre for NE region;
- (ii) Mobility of scientists is good for scientists as well as the organisation. An isolated cadre will be deprived of the benefit of mobility on all India basis; and
- (iii) Such a cadre would distort the ARS system.

In view of above, it is felt that no useful purpose is likely to be served by creating a separate cadre for NE region rather such a move may prove to the counter productive.

The relevant recommendation is forwarded to Department of Agriculture and Cooperation (DAC) for further necessary action as that department is co-ordinating the work of Agriculture Coordination Committee.".

COMMENTS OF THE COMMITTEE

1.25 The Committee are not satisfied with the reply of the Department as it does not mention anything/ any action being taken other than merely forwarding it to DAC and what action DAC has taken/initiated on the main recommendation of the Committee that the Prime Minister as head of Agriculture Coordination Committee and Union Minister of Agriculture being President of ICAR should set up a High-level Committee of Scientists and practising farmers from different parts of the country to suggest methods of overcoming their problems, technology fatigue, to bridge the gap between potential and actual yield and agrarian crisis the country is facing.

The Committee, therefore, reiterate that the Department should expedite the setting up a High-level Committee at the earliest and apprise the Committee about the actual action taken in this regard within three months from the date of presentation of this Report to the Parliament.

(Recommendation No. 8)

Need to undertake an effective Programme on Rural System Research (RSR) by ICAR

1.26 The Committee noted that the National Farmers Policy has a number of commitments as far as agricultural research and education is concerned and the first one is to make the farming income oriented.

The Committee desired that DARE/ICAR should seriously ponder upon the ways and means to maximise the income per units of labour, water, land and capital, the four pillars of agriculture. ICAR should also develop the right strategy to help improve the farm productivity income of the small farmers for the reason that over 80 per cent of our 105 million operational holdings are, one hectare and below.

The Committee further recommended that apart from cropping system research and farming system research, ICAR should also undertake an effective programme on the Rural System Research (RSR) which looks at the on-farm and non-farm employment in its totality as the Chinese have done in a very effective way. The RSR programme should concentrate at post harvest technology, agro-processing and value addition at the village level itself and not sending the raw materials to the city, but making jobs available in the village itself in order to provide additional sources of income to both, landless labourers as well as small farmers and their family to bring them out of vicious circle of poverty.

1.27 The Government, in their Action Taken reply have stated as follows:-

"Research Institutes/All India Coordinated Research Projects (AICRP) of ICAR have focused their research in the cropping system and farming system. The proposed Rural System Research (RSR) for the holistic on-farm and non-farm employment of the farming community would be implemented through the relevant cropping system. The ICAR participates in the network project on farming systems in order to generate relevant technologies in this regard. Under AICRP on Post Harvest Technology, efforts have been made to establishing Agro Processing Centres (APC) by in villages for primary processing of farm produce and value addition to the farm produce resulting in employment and enhanced income to the farmer. This shall be more vigorously pursued as suggested.

The equipment & technologies are developed by various Engineering Institutes keeping in mind the small, medium and large farmers. The equipment developed have

resulted in timely and precise application of various inputs thereby resulting in increase in yield and enhanced income to the farmers.

Natural Resource Management (NRM) caters to the farming needs of small and marginal farmers, Council has developed several location specific and cost effective techniques like water harvesting, micro irrigation, *in situ* water conservation, vermincomposting, bio-fertilizers, bio-pesticides and simple farm tools and implements for small land holdings. A publication on "System based low cost production technologies for small farmers" has also been released.

The Fisheries Research Institutes also developed technologies to enhance production and productivity in fisheries and aquaculture sector through judicious utilization of the available resources and inputs to help the fishers and fish farmers in maximizing the returns. Further, the Central Institute of Fisheries Technology (CIFT), as the mandate to address the issues of post harvest technology, fish processing and value addition. Necessary technology demonstration and training programmes have been conducted leading to several entrepreneurs taking to these technologies at industrial level as well as at cottage level through formation of women SHGs in the area.

As far as Krishi Vigyan Kendra (KVK) is concerned, proposal has been included in the EFC of XI Plan for establishment of demonstration units on Minimal Agro-Processing Facilities in the selected KVKs with technological backstopping from relevant AICRP Centres on Post Harvest technology.

National Agricultural Innovation Project launched with funding through World Bank aims at holistic development of Agriculture and allied sector. The projects under this Component would be implemented in 150 most underprivileged districts of the country and is aimed at enhancing the income of farmers and rural employment.".

COMMENTS OF THE COMMITTEE

1.28 The Committee note from the reply that one of the action taken on the recommendation in that the Department has brought out a publication on "System based Low Cost Production Technologies for Small Farmers".

The Committee feel that the Department should invariably bring out all their publications meant for farmers also in Hindi and local languages of the areas/regions a particular publication is meant for. The Department should also undertake an initiative with immediate effect, for getting all their publications translated which are meant to benefit the farming communities in any manner across the country from English to Hindi and also in local languages of the area/region. The Committee also stress that Rural System need multiple livelihood opportunities and Government should explore avenues to create and enhance non-farm income of farmers and other people dependent on agriculture and allied sectors.

(Recommendation No. 9)

Need to develop low cost and good quality Feed and Fodder for the Livestock through R&D

1.29 The Committee noted that livestock has the most important contribution in the country's economy as well as in the livelihood of million of Indian farmers and their families. The most important input for the existence of the livestock is feed and fodder. The poultry industry is sufferings due to high cost of maize. Similarly, low availability of good quality feed and fodder and its high cost have been noticed throughout the country.

The Committee, therefore, recommended that ICAR should pay due attention to this issue and do the needful R&D to bring out good quality and low cost feed and fodder for all kinds of the livestock of the nation including animal, poultry and fisheries.

1.30 The Government, in their Action Taken reply have stated as follows:-

"ICAR has already given attention on improving the nutritive value of feed and fodder resources and have already come out with technological means to enhance bio-availability of nutrients through incorporation of productivity supportive nutrients as in the case of substitution of area specific deficient minerals. Similarly, efforts are on to detoxify non-conventional feed resources like caster oil cake. Further, to support productivity enhancement through resource based feeding, the concept of total mixed ration and complete feed blocks area being promoted.

Keeping in view the recommendations of the Committee, ICAR has identified the aspect of developing low cost but good quality feed supplements in their XIth Plan Programmes particularly by the institutes dealing with this aspect of livestock feeding.

The Department has also developed several location specific silvi-pastoral agro forestry models, particularly for degraded/ wastelands to augment the production of feed and fodder for livestock including animal poultry and fisheries.

A feed block making machine which makes rectangular feed blocks of 2 square feet has been developed by ICAR without any binding material. These feed blocks are easy to handle and can be easily transported and stored. The Govt. should establish

"Fodder Banks" to store fodder for supplying fodder to fodder deficit areas. Efforts have also been made to enrich feed blocks with ammonia to increase its nutritional quality.

Fish feed being identified as one of the thematic area for research, the ICAR has already initiated an Outreach activity on Fish Feed during the XI Plan with objectives to

develop cost effective live and formulated feeds for improved larval survival and growth; suitable feeds and feed management strategies for grow out culture systems; possible biotechnological interventions to improve the feed quality and its utilization in terms of digestibility and efficiency; and setting up pilot scale fish feed mills for scaling up of feed technology to support the aquaculture activities in freshwater, coldwater, coastal and marine ecosystems."

COMMENTS OF THE COMMITTEE

1.31 The Committee note from the reply that the Department has been taking/about to take many measures with regard to implementation of the recommendation of the Committee regarding need to develop low cost and good quality feed and fodder for the livestock through R&D and has also mentioned that the Government should establish "Fodder Banks" to store fodder for supplying fodder to fodder deficient areas and setting up fish feed mills for scaling up of feed technology to support the aquaculture activities in freshwater, coldwater, coastal and marine ecosystems.

The Committee would like to be apprised as to what initiative/steps the Department has taken/propose to be taken with regard to getting establish "Fodder Banks" and setting up pilot scale "Fish Feed Mills", including the details of the role of the Department and other Departments, if any, involved; requirement of budgetary provisions; physical and financial targets set and the likely time period to be taken to convert both of these ideas into practical reality/making it operational, within three months time from the presentation of this Report to the Parliament.

(Recommendation No. 11)

National Bureau of Animal Genetic Resources (NBAGR) to maintain and preserve fastly disappearing pure material and pedigrees/local breeds

1.32 The Committee noted that ICAR has been pioneer in genetic resources, conservation and management. But in the area of animal genetic resources, a lot of very good materials were being lost. Unlike National Bureau of Plant Genetic Resources (NBPGR), the National Bureau of Animal Genetic Resources (NBAGR) did not maintain animals; they only had a database on animals as the maintenance of the pure materials and the pedigrees, etc. were left to individual farmers or sometimes to the State Governments.

The Committee, therefore, recommended that NBAGR should be provided about 100 hectares of land and facilities in every State to allow them to maintain and preserve the fastly disappearing pure materials such as *Rathi* breed in Suratgarh (Rajasthan), *Badavari* buffalo

breed, *Ongole* and *Nellore* breed and maintain local breeds, etc. which are important for the future and are adapted to local conditions. NBAGR may accordingly enlarge their mandate to incorporate maintenance and preservation of the pure material/local breeds.

1.33 The Government, in their Action Taken reply have stated as follows:-

"The NBAGR/ ICAR has taken the needed initiative to preserve threatened/ endangered and vastly disappearing animal breeds not only through NABGR but also through its species specific institutes in the form of Network / AICRPs programmes. This

issue of conservation of animal genetic resources falls under the area domain of DAH&F operation. Based on the recommendation of the Parliament Standing Committee on Agriculture, ICAR has written to Secretary, DAH&F, Government of India to explore the possibility of accessing 100 hectare of land under Animal Husbandry Departments of various states of the country. Once a provision is made by the different states to allocate the land, NBAGR would be providing needed technical backstopping the related advice to ensure the conservation of the Animal Genetic Resource.".

COMMENTS OF THE COMMITTEE

1.34 The Committee would like to be apprised of the final action taken for actual implementation of this recommendation at the earliest and advice the department to pursue this matter vigorously with the Secretary, DAH&F, Government of India and Chief Secretaries of all the States to get the needful done expeditiously and till some favourable outcome is achieved.

(Recommendation No. 12)

ICAR to have Authoritative Estimates of Agrarian Post Harvest Losses and develop better Post Harvest Technologies and Varieties for Processing and Value-addition

1.35 The Committee noted that India's agricultural production base is quite strong but at the same time wastage of agricultural produce is massive. Processing level is very low i.e. around 2% for fruits & vegetables, 26% for marine, 6% for poultry and 20% for buffalo meat, as against 60-70% in developed countries.

The Committee also noted with heavy heart that at present, no authoritative estimates of post harvest losses in various agricultural livestock and fisheries sectors are available. However, on the basis of the general post harvest loss estimates available with the ICAR, the extent of annual post harvest losses in various commodities alongwith their estimates in rupees

are as follows:

- a. For grains the losses are about 10% value at Rs 16500 crore
- b. For pulses the losses are about 15% values at Rs 2000 core
- c. For fruits the losses are about 30% valued at Rs 13600 crore
- d. For vegetables the losses are about 30% valued at Rs 14100 crore
- e. For floriculture the losses are about 40% valued at Rs 400 crore
- f. For livestock and fisheries produce the losses are valued at Rs 8400 crore.

The Committee were deeply perturbed to note that even after existence of many decades, DARE/ICAR had no authoritative estimates of Post Harvest losses till date. The Committee had no choice but to remind the DARE to go through the Appendix I of their Annual Report 2007-08 at page 147 regarding the GoI (Allocation of Business) Rules, the Second Schedule (Rule 3), and especially refer to item at SI.No.14 under Part III which states, "Enquiries and Statistics for the purpose of any subjects allotted to this Department". Having no authoritative estimates/statistics of Post Harvest Losses of agrarian and allied sector produces even after more than 50 years of existence in case of DARE/ICAR, speaks volumes about the irresponsible manner the DARE/ICAR are fulfilling their mandatory responsibilities.

The Committee, therefore, strongly recommended that the DARE/ICAR should not allow any lackadaisical tendencies to undermine their nodal and apex stature at national level and should take immediate steps to collect, compile and analyse data at the earliest at national level, state-wise/UT-wise, in order to have better Planning and R&D to stop wastage of about Rs.55000 crore per annum. The Committee opine that this would also help the concerned Ministries/Departments/Agencies entrusted to develop appropriate technologies and modern storage facilities, area-wise, to prevent the available/avoidable waste. Unless this is done, and the desired post harvest technologies developed and implemented to plug the gaping hole in the basket of agrarian and allied sector produces, all the efforts made by the ICAR to increase productivity and production of agrarian and allied produces will not bear the desired result. The Committee also recommended that ICAR should pay due attention in addressing the problem of non-availability of varieties which are good for processing and value addition as it is high time to have more and more food, fruits and vegetables processed to curb the severe post harvest losses of agrarian produces. To end the prevailing mismatch between production and post harvest technology, the Committee recommended the large number of lab to land demonstrations to familiarise the farming community to agro-processing and value addition, etc.

"The ICAR is seized of the matter of post harvest losses of grains pulses and other commodities. Research related to the mitigation and prevention of losses through better storage facilities and commodity treatment with appropriate techniques have been developed as technologies and communicated to the user agencies for preserving the commodities without at minimised loss. So far as processing varieties is concerned, earlier there was no focus on this. Now focus is there for developing varieties suitable for processing e.g., potato., mango,grapes which have already gone to the users. These technologies have been passed on to KVKs for field demonstrations.

Post harvest losses in livestock sector particularly for milk has been assessed at 3.05% at rural farms, 1.87% at rural (commercial) dairies and at 4.31% at urban dairies. Losses in egg sector has been assessed at 8,87% in some pockets of Uttar Pradesh and that of poultry meat at 3.83%. However, as per the recommendation of the Committee, nation wide data collection initiative shall be taken involving Department of Animal Husbandry Dairying & Fisheries and State Agricultural Universities / State Veterinary Universities during XIth Plan. Similarly, initiative shall also be taken on demonstrating the evolved post harvest processing technologies of milk for the benefit of the farming community involving the KVKs, wherever feasible technically.

The issues on harvest and post harvest losses in the fisheries sector are being addressed through the Central Institute of Fisheries Technology (CIFT). The CIFT has already carried out a study to assess the harvest and post harvest losses in marine and inland fisheries in collaboration with the Indian Agricultural Statistics Research Institute (IASRI) under a mission mode project with funding through the National Agricultural Technology Project (NATP). To estimate such losses in Marine Sector, the study was undertaken at the Ernakulam District of Kerala covering thereby the traditional, motorized and mechanized sectors for assessing losses during harvest and for post harvest losses, the processing centres, the wholesale and retail markets, transportation centres and consumers were covered. To assess the losses in Inland Sector, the study was carried out in selected districts of Andhra Pradesh & Orissa covering thereby the aquaculture ponds, the landing centres, the processing units, the markets, transportation

centres and the consumers. Further studies to estimate the harvest and post harvest losses at National level are in progress.

The CIFT has developed a number of technologies for minimizing the harvest and post harvest losses through designing resources specific fishing techniques and development of value added products from by-catches, discards and low-value fish and

shellfish species. Necessary technology demonstration and training programmes have been conducted leading to several entrepreneurs taking to these technologies at industrial level as well as at cottage level through formation of women SHGs in the area.

As far as the issue related to familiarize the farming community to agroprocessing and value addition is concerned, during the last year, a number of technologies suitable for small scale income generation, value addition and storage were taken up for assessment and refinement on location specific basis. During the same period, 61480 farmers were trained on different aspects of production, processing and value addition. In addition, as indicated earlier, demonstration units on Minimal Agro-Processing Facilities have been proposed during XI Plan.".

COMMENTS OF THE COMMITTEE

1.37 The Committee would like to be apprised of the time schedule of the Department to complete the implementation of all the issues raised in this Recommendation of the Committee and further progress under various issues involved until the final outcome is achieved, every three months of the presentation of the Report to the Parliament.

(Recommendation No. 13)

Need for operationalization of the concept of every Agriculture Scholar becoming an Entrepreneur

1.38 The Committee noted that the main aim of Agricultural Universities was to impart education and ensure that every scholar and entrepreneur had the ability to go into entrepreneurship. Self-employment opportunities for an agricultural graduate are minimal as these days many of them have to appear for the IAS or IPS examination or study MBA afterwards to get job in Banks/Administration. The Agriculture and Animal Husbandry subjects should be restarted teaching at schools and colleges. In Punjab and Haryana, these subjects used to be taught till late 70s.

The Committee opined that young people would join the agriculture and allied sector only if it becomes economically rewarding and diversified. Home Science colleges should be involved in much more intensive way in this area apart from veterinary and fishery science.

The Committee, therefore, strongly recommended that ICAR should appoint a technical group to look into the ways and methods of operationalisation of the concept of every agriculture scholar becoming an entrepreneur. This technical group may consider revamping the syllabus of agriculture, restructuring the agri. clinics and agri. business centres meant for providing self-employment opportunities for agricultural graduates, integrating MBA ingredients in the

Agricultural University itself so that business and agriculture technology can go together. Every State Agricultural University should set up a Placement Cell for self-employment (Agri-Clinic/Agri-Business) of their agricultural graduates/scholars for familiarising them with opportunities for gainful remunerations.

1.39 The Government, in their Action Taken reply have stated as follows:-

"In the ICAR curriculum review has been made and it is in utilitarian mode. National Academy of Agricultural Research Management (NAARM) will also be undertaking efforts to develop special course in agri-business.

The Placement cells are in operation in most of SAU's and ICAR is extending financial aid to these cells to meet out recurring contingent expenditure.".

COMMENTS OF THE COMMITTEE

1.40 The Committee are not satisfied with the reply of the Department as it do not mention anything about the issues that teaching the Agriculture and Animal husbandry subjects should be restarted at schools and colleges as was being done in Punjab and Haryana till late 1970s, as well as involving home Science Colleges in much more intensive way in this area apart from veterinary and fishery science and integrating MBA ingredients in the Agricultural Universities itself.

The Committee would like to be apprised of the final action the Department would like to take on all the issues raised and recommended by the Committee in this Recommendation within three months time from the date of presentation of this Report to the Parliament.

(Recommendation No. 14)

Horticulture Department of ICAR should initiate a Programme on Micro-Nutrients/Vitamins Demonstrations.

1.41 The Committee noted that in developing nation like India there was large amount of micro-nutrient deficiencies in human beings, known in technical parlance as 'hidden hunger'. In the opinion of the Committee, one of the best methods of removing 'hidden hunger' is through

the horticulture approach as consumption of horticulture produces has the triple advantage of getting micro-nutrients, vitamins as well as calories.

The Committee, therefore, strongly recommended that there should be a well qualified nutritional expert in the horticulture Division of ICAR who could attend to these issues. The Committee also recommended that

Horticulture Department of ICAR should take up a programme on micro-nutrients/vitamins demonstration, particularly, in malnutrition hotspots/areas to have horticulture remedy for a nutritional malady.

1.42 The Government, in their Action Taken reply have stated as follows:-

"The ICAR is well aware about the growing micro and secondary nutrients deficiencies in soils *vis-à-vis* malnutrition in human and animals health through food chain. The Department has developed soil test based balanced and integrated nutrient management packages for major cropping systems in different agro-ecological regions of the country to overcome such situations. The ICAR also imparts trainings and frontline demonstrations to the farmers in this regard.

Out of two posts of Principal Scientists in the ICAR Headquarters, New Delhi, one will be converted as Principal Scientist, (Nutrition) and the same will be advertised and filled through Agricultural Scientist Recruitment Board (ASRB).

Likewise two more posts would be converted as Scientists (Nutrition) one each at Indian Institute of Horticultural Research (IIHR) and Central Institute Subtropical Horticulture (CISH) where the work under this recommendation will be implemented.".

COMMENTS OF THE COMMITTEE

1.43 The Committee wish to point out that very little has been done by ICAR so far with regard to taking up a programme on micro-nutrients/vitamins demonstrations, particularly, in malnutrition hotspots/areas to have horticulture remedy for a nutritional malady.

The Committee would like the Department to take up an exclusive programme as mentioned in the recommendation and apprise the Committee of the further positive action taken by the Department with regard to taking up an exclusive programme and appointing a well qualified nutritional expert in the horticulture Division of ICAR within three months from the date of presentation of this Report to the Parliament.

(Recommendation No. 16)

Incorporation of yield /income per hectare columns in all the publications of ICAR and their Institutes/Universities

1.44 The Committee noted that usually a farmer is able to tell the total quantity of his produce but he may not be able to tell at what cost or whether the crop was viable for him or not because he does not have much knowledge of costing/cropping system.

The Committee felt that this kind of ignorance put the small and marginal farmers into a series of debts and depths of poverty and jeopardise his very existence.

The Committee, therefore, recommended that there is a need for ICAR to instruct all their Institutes and Universities that in their publications, when an Agronomist publishes a paper or when a variety is going to be released or approved, there should invariably be a double column, namely, yield per hectare and income per hectare to enable all the farmers to be aware of the economy of their crops.

1.45 The Government, in their Action Taken reply have stated as follows:-

"All the SMDs have been made aware of this recommendation of the Committee for necessary follow-up action.".

COMMENTS OF THE COMMITTEE

1.46 The Committee would like to be apprised of the final outcome/implementation of this recommendation and expect the Department to fix norms/guidelines for all the scientists of the ICAR to follow this recommendation in letter and spirit without any exception.

(Recommendation No. 18)

Need to do research on developing smaller size of Potato Seeds

1.47 The Committee noted that farmers of other States who bring potatoes from Himachal Pradesh used the potatoes for sowing by cutting it into half and planting germinating portion. This traditional way of sowing half of the potato, increase the quantum and weight of the seeds required. The Committee felt that if the needful research could be undertaken by ICAR to reduce the size of the potato seeds and any success in this project would certainly reduce the seed cost owing to increase in the number of smaller potato seeds per quintal.

The Committee, therefore, recommended that ICAR should undertake this project on developing smaller size of potato seeds and they should be informed of the action taken at the earliest. In addition, research and development of True Potato Seed (TPS) technology should be intensified.

1.48 The Government, in their Action Taken reply have stated as follows:-

"About 40-60% cost of potato cultivation is incurred on potato seed. This is due to high seed rate (2.5 to 3.5 t/ha) in potato. Cutting of seed tubers is not advised because this may spread tuber

borne diseased to healthy tubers. The recommended seed size in potato is 40g. However, at a recommended spacing (row to row 60 cm and tuber to tuber 20 cm, the proportion of seed size tubers is less. Seed size can be manipulated by reducing planting distance and also giving shorter bulking time by cutting haulms between 70 to 90 DAP depending upon maturity of the variety.".

COMMENTS OF THE COMMITTEE

1.49 The Committee are not satisfied with the reply of the Department as the reply has totally side-lined the main crux of the recommendation, namely, ICAR should undertake the project on developing smaller size of Potato seeds and intensifying the R&D of True Potato Seeds (TPS) technology.

The Committee are of the view that ICAR has furnished perfunctory reply and should give serious consideration to the recommendations of the Committee.

The Committee would like to be apprised of the details of the action taken/propose to be taken at the earliest for both the issues reiterated above which still remains unattended and un-replied.

(Recommendation No. 19)

Need for Greater Inter- Ministerial Coordination for uplifting Indian Agriculture

1.50 The Committee were well aware that the overall welfare, prosperity and growth of Farmers and Agriculture & allied sectors was dependent on many factors put together such as, water, power (electricity) for irrigation, financial credit, good quality seeds, good quality fertilizers and pesticides, efficient tools and machinery, availability of latest technology, roads and transportation facilities, storage and marketing facilities, etc.

The Committee were of unanimous view and recommended that since all these factors were directly related to the jurisdiction of many Ministries/Departments of Government of India, it would be more than essential for all these Ministries/Departments to have the best of ever growing inter-ministerial coordination among themselves with a single-minded zeal to achieve the same objective/goal of agrarian growth and prosperity of Indian farming community.

1.51 The Government, in their Action Taken reply have stated as follows:-

"The Inter-Ministerial Coordination aspect is being ensured by holding Rabi & Kharif ICAR-DAC interface regularly in which issues pertaining to research and interministerial coordination are discussed in length and final outcomes of previous issues are circulated to the States for adoption.

The research output of the various schemes in the ICAR have been collated and brought out as technical bulletins for being communicated to user agencies, line departments and Krishi Vigyan Kendras. Frontline demonstrations of these technologies are taken up in farmers' fields by the respective state Agricultural Universities and ICAR Institutes every year. These results are collated and shared with Department of Agriculture & Cooperation. The goal of agrarian growth and prosperity of Indian Farming Community is the major objective of the outlook and practice of research in the various schemes of the Department.

The KVKs have been established at the district level. Each KVK has a provision of Scientific Advisory Committee to facilitate inter-departmental coordination involving the representations of line departments, financial institution, and media, besides the representatives of research and extension agencies.

In order to have better inter-ministerial co-ordination, ICAR has already taken initiative to have collaborative approach with Rural Development Ministry to take the identified technologies to the farming community. Similarly, intra ministerial co-ordination has also been initiated for livestock sector with DAHD&F separately for the first time. Co-ordination with other ministries, as suggested by the Committee shall be further strengthened.".

COMMENTS OF THE COMMITTEE

1.52 The Committee would appreciate further if ICAR-DAC interface regularly at Rabi & Kharif, invite at appropriate time and frequency other concerned Ministries/Departments such as Ministry of Water Resources, Power, New & Renewable Energy Sources, Chemical & Fertilizers, Rural Development, Consumer Affairs, Food & Public Distribution; Shipping, Road Transport and Highways, Finance, DAHD&F, etc. and hold regular interfaces with them rather than merely discussing inter-ministerial coordination related issues between DARE-DAC, thus, expending the horizon of their regular interfaces.

(Recommendation No. 20)

In-action of DARE/ICAR to produce self-help, smaller version of Synthetic/Adulterated Milk Detection Kit for use of the Common Man

1.53 The Committee in their Recommendation No. 11 of Second Report & Sixth Action Taken Report (2004-05) on DFG (2004-05) of MoA (DARE) had noted with anguish that no action worthwhile seems to have been taken on their specific recommendation to promote and popularise the research in detecting synthetic/adulterated milk and to produce a self-help/low

cost diagnostic kit affordable by the common man/consumers of milk.

While examining the DFG(2008-09) of the Department, the Committee enquired that the latest status of the issue regarding development of the self-help/low cost diagnostic kit for the use of the common man and were apprised that NDRI- Karnal has developed simple Platform test for detection of synthetic milk since 15-06-2005. This is a colour based test and detects presence of detergent, which is used as one of the ingredient in preparation of synthetic milk. The test results are available in 5-10 minutes. The adulteration of milk with 2-3% 'synthetic milk' can be detected. This single test is sufficient to detect presence of synthetic milk. The test uses cheap chemicals and cost of chemical per test will be around Rs.2/-. Since, a patent for the process has been applied, names of the solvent and the dye are not mentioned. Transfer of Technology of this test is assigned to National Research and Development Corporation (a Govt. of India Enterprise), New Delhi and is under consideration to be purchased by Mother Dairy.

In response to a point as to what DARE/ICAR has done till date to promote and popularize their research in detecting synthetic/adulterated milk, the Committee were informed that NDRI- Karnal has developed kit for detection of 12 different adulterants and is on sale. Kit is available for Rs.5000/- for any six adulterants. Each reagent for individual adulterants is sufficient for 50 to 100 milk samples. Popularization of kit is done through exhibits in conferences and Kisan Mela.

The Committee strongly deplored and took a serious view of the tendency of the Department in totally sidelining and deliberately ignoring the crux of the recommendation of the Parliamentary Committee on Agriculture, As a matter of fact the Department has been giving incomplete, vague and false assurances year after year, especially w.r.t. producing self-help smaller and economy version of the diagnostic kit presently costing Rs.8600/- for identifying 12 common adulterants in milk and make all out efforts to popularise their low priced smaller version of the Diagnostic Kits which can be gainfully used by the common man.

The Committee were dissatisfied with the in-action of the Department in this regard as it is evident from their statements of action so far that neither the Department had produced a self-help, smaller and economy version of the already produced kit for gainful use of a common man nor they had made all out efforts to popularise the same till date. The Kit they had been popularising through exhibits in conferences and Kisan Mela was the older/original version of the Kit and not the smaller and economic version of the original Kit recommended by the Committee. Moreover, the common man does not go to conferences and Kisan Mela. Thus, the Department has failed to fulfil their own hollow promise that they were making efforts to develop low-cost technology kit affordable for the common man.

Similarly, the action of transfer of technology of simple platform test for detection adulterated milk with 2-3% of synthetic milk has been assigned to NRDC and said to be under

consideration for purchase by 'Mother Dairy', Delhi, is going to benefit Mother Dairy and other such bulk producers/sellers of milk only and not the common man as he will not be able to make use of the Platform Test himself in order to know whether the milk he and his beloved family members are consuming is good or bad to drink.

The Committee were of the view that the Department is deliberately avoiding to produce the smaller and economy version of the diagnostic kit for the use of the common man for the reason that they are not ready to face the truth about the evil of synthetic/adulterated milk that has grown to enormous proportion. In case the actual data regarding availability of pure milk and synthetic/adulterated milk are researched and made available to public, then, the number one position in milk production, India is enjoying and DARE/ICAR claims to bag the credit for the same, will prove to be nothing but a tragic unhealthy illusion/eye-wash.

The Committee, therefore, strongly recommended that the DARE/ICAR should immediately take action in this regard and come out with a self-help, smaller and economic versions of the diagnostic kits for all the 12 common milk adulterants with a test carrying capacity ranging from 1, 2, 3, 4, 5 and 10 tests per reagent/solvent for the use of the common man and the same kits should be made available for sale at all the Mother Dairy Milk/Vegetable Booths as well as Delhi Milk Scheme Booths/Chemist shops and also in other States/UTs. Unless, this is done, the problem of synthetic/adulterated milk will continue to grow further and ruin the health of every milk and milk products consumer in India and the dream of healthy India will never become a reality.

1.54 The Government, in their Action Taken reply have stated as follows:-

"As per the recommendation of the Committee, immediate steps would be taken, depending on the feasibility and safety issues, to come out with self-help, smaller and economic version of diagnostic kits to diagnose milk adulterants.".

COMMENTS OF THE COMMITTEE

1.55 The Committee would appreciate if the Department stops furnishing diplomatic replies time and again as in the instant case, this issue was brought to the cognizance of the Department in the year 2004 and the Committee are pursuing this matter with the Department again and again for the last four years and the Department has been befooling by giving indifferent replies and ignoring the gravity of the complex issue which if continued to be avoided/ignored as it has been done so till date, will jeopardize the health of every milk & milk products' consumer in India, from little children, grown ups, young and old alike.

The Committee would really appreciate, if as per the recommendation of the Committee, self-help, smaller and economic versions of the diagnostic kits for all the 12 common milk adulterants with a test carrying capacity ranging from 1, 2, 3, 4, 5 and 10 tests per reagent/solvent for the use of the common man and the same kits should be made available for sale at all the Mother Dairy Milk/Vegetable Booths as well as Delhi Milk Scheme Booths/Chemists Shops and also in other States/UTs, within a stipulated time schedule of three months from the date of presentation of this Report to the Parliament as the Department has already wasted four years without giving any positive outcome in this regard except once they have given an assurance that they are doing the needful in their further action taken replies as they have given this time, that too was more than two years ago.

The Committee would also recall their on the spot study visit to NDRI, Karnal in the month of May, 2008 during which the Committee had discussed all the pros and cons including feasibility and safety issues at length/ in detail, related to bringing out the recommended kit for the use of the common man with the representative of NDRI, Karnal. The Committee are sanguine that the Department would actually do the needful in this regard at the earliest without further loss of time as promised by them on many occasions in the past.

(Recommendation No. 21)

Some other issues related to ICAR

1.56 The Committee felt (a) that there was need to organize frequent Krishi Vigyan Melas at District level; (b) that there was need to find remedies for diseases of Honeybees in HP & Uttrakhand; (c) that there was need to train farmers of disaster-prone areas; (d) that there was a dire need to restart teaching agriculture and animal husbandry as subjects in schools and colleges from class VIII onwards to attract the youth towards these sectors of economy; (e) that there was need to take research to small farmers through extension programmes, such as Seminars/Workshop/Orientation programmes to be conducted by agricultural universities/colleges at regular intervals;(f) that there was need to have exclusive KVKs on Fisheries for imparting the latest technical training skills on the basis of learning by doing, to the local fishermen from capture to consumption and processing; (g) that water scarcity in the country was going to be the biggest challenge in near future and there is need to develop biotic and abiotic (heat-resistant) seeds requiring less water to germinate in wake of Global Climate Change; (h) with regard to bio-security, either Bhopal or some other institute should become the National Centre for Agricultural Bio-security and it should be strengthened. We should have a

network of institutes, a single institution will not be enough. We should have them in all the major agro-climatic regions in the hub and spoke model; (i) the other facility badly required was an off-shore quarantine Islands such as in Lakshadweep Islands or Andaman & Nicobar Islands where no human being reside, where we can have absolutely safe testing facility; (j) we should take care the financial and technical needs of mother institutions such as IARI and Agricultural Universities. The Department should immediately provide Rs.100.00 crore to IARI, New Delhi during 2008-09 for improving farm infrastructure with reference to irrigation. As research and education are expensive, the Government should develop a corpus of Rs.1000 crore or more from which a need based investment can be done; (k) the State Agricultural Universities should not be fragmented into agriculture, animal husbandry, fisheries and horticulture, etc. rather they should work for the farming system as a whole. ICAR should also coordinate with other Departments of the Government of India to collect and disseminate knowledge of its research in different agricultural fields to them for holistic development of agriculture and allied sectors, so as to focus on more jobs, income security and work security and people's livelihood in rural agrisystem; (I) as water table is going down and irrigation facilities are dwindling, ICAR should focus their research on developing seeds which are water-resistant, weed resistant and of high yield variety; (m) the climate change should be taken up as a challenge to develop new varieties of wheat, rice, pulses, oilseeds and horticulture crops. The Agricultural universities should be given more financial help to do research in this direction; (n) KVK should work as mini research cum extension institute which may directly be connected with the farmers of the area; (o) KVKs and Agricultural Technology Management Agency should coordinate to disseminate knowledge about latest agricultural technology and research to the farmers of that area; and (p) that there is need to establish a Central/Regional Research Institute of Temperate Horticulture, in addition to the already existing Institute at Srinagar (J&K), to cater to the problems of the farmers cultivating horticultural crops at the height of 3000 feet to 5000 feet in Uttrakhand/HP and other hilly areas as 12% of the total crop area is lying in Himalayan Region and not more than 2% of the same has been tapped so far.

1.57 The Government, in their Action Taken reply have stated as follows:-

"As this Recommendation is multi-disciplinary and also involves Planning Commission etc., the response/ implementation status for each is as follows:

Planning Commission: The Department had forwarded this recommendation to Planning Commission/Ministry of Finance. The Planning Commission responded that "The other issues which are related to Administrative and Coordination. The Planning

Commission has always supported coordination and managerial for effective delivery of technology for its realization in the field."

Crop Science:

- (a) All the ICAR Institutes are organizing Krishi Vigyan Melas every year during the crop season at their campuses and on farms. The concerned line departments of the State, progressive farmers and farmers from the respective States are brought together for exchange of information on new technologies including recently released crop varieties and also for mitigation of their various problems
- (b) The technologies developed to prevent various diseases including mites in honeybee colonies have been developed. These technologies for commercial apiculture are transferred to the bee keepers of Himachal Pradesh and Uttarakhand through the respective States Agricultural Universities. The bee keepers are also invited for training to these campuses every month for familiarizing the practical approaches to practice these technologies. Further fortification of research in this regard is also proposed in this XIth Five Year Plan period.
- (g & I) Research efforts to develop crop varieties having resistance to various key biotic stresses and abiotic stresses such as heat resistance, submergence etc. are intensified in the 11th Five Year Plan period.

Horticulture:

(p) CITH, Srinagar has already a station in Mukteswar which will further be strengthened to cater to the needs of hilly areas.

Natural Resource Management:

(c, g & m) Keeping in view the growing water scarcity in the country, the Council has already given emphasis on developing drought/ heat resistant varieties. Besides, a Network project on *Impact of climate change on agriculture including vulnerability, adaptability and mitigation measures* is already in operation. The council has also formulated contingency crop planning to cater natural disaster like cold/ drought/ flood etc.

Department is concerned with global climate change for which in the recent ICAR-DAC interface it has

been decided that outcome of the National Network Project on "Climate Change Adoption" may be summarized and provided to ICAR so that same could be circulated.

The Council is actively considering to establish a National Institute on abiotic Stress Management in Agriculture during the current plan.

Fisheries:

The Fisheries Research Institutes have initiated programmes on water budgeting in aquaculture and also on impact of climate change on the fishery resources and ecosystem stress management. The Institutes have taken up programme to develop bio-security and bio-safety protocols & food- safety guidelines for hatcheries & grow out culture systems and post harvest sector.

Animal Science:

- (a) KVKs attached to Animal Science Institute are arranging such melas periodically in addition to organizing 'hands on' training program. Livestock shows/ melas are also arranged from time to time with Kisan Gosthi programme where scientist- farmer interacts. However, steps will be taken, as suggested by the Committee, to increase the frequency of such melas.
- (e) Most of Animal Science Institutes are doing this in the form of Kissan Mela, Kissan Sanmelan, Scientist-Farmer interface, Doordarshan programmes, documentary films. However, periodically of such programme shall be increased as advised by the Hon'ble Committee.
- (h) High Security laboratory at Bhopal is being strengthened to act as referral institution to undertake investigations of bio-safety and bio-security. Further, BSL 2,3 and 4 laboratories are being proposed at different locations like IVRI,

Izantnagar, (UP) IVRI, Mukteshwar (Uttrakhand), IVRI Bangalore (Karnataka) PD ADMAS, Bangalore (Karnataka), PD FMD (Bhubaneshwar), NDRI, Karnal (Haryana), NRC Equines & Vety. Type culture, Hisar (Haryana) during the XI Plan. In addition to this, DAHD&F is also learnt to have proposed such laboratories at regional level.

(i) DAHD&F, is attending to this issue. The need to identify off shore islands for quarantine measures shall be taken up with them during the interface meeting proposed shortly.

Education:

- (d) DARE/ ICAR endorses the recommendations of Committee and it will be discussed at appropriate for a.
- (k) ICAR also holds this view. However, this being a state subject, the issue would perhaps need in depth deliberation at appropriate level.
- (j) The Government on Economic Affairs approved Rs. 60.25 Crores for IARI during Xth Plan, of which Rs. 48.75 Crores were actually utilised. For Xlth Plan Rs. 171.00 Crores have been earmarked for this premier institution, which is an increase of 184 percent.

Extension:

- (a) A number of kisan melas and exhibitions are organized by KVKs for creating awareness on improved agricultural technology among the farmers at district level. During the last year, 30.18 lakh farmers benefited from such programmes.
- (c) During last year 10.94 lakh farmers benefited from training programmes including .disaster prone areas.
- (e) Similarly KVKs organized a number of sammelan/seminar /worshop, kisan goshti, group discussion, field day, exposure visit and such other extension programmes are organized by the KVKs. During last year 19.45 lakh farmers were benefited from such programmes.
- (f) As far as establishment of exclusive KVKs on fisheries is concerned, it is submitted that Government has approved for establishment of one KVK in each of the rural districts in the country with a multi-disciplinary team of scientific/technical personnel which are identified depending upon the thrust areas of a district and to work on farming system perspectives. There is no provision for establishment of specialized KVK. During XI Plan proposal has been included for strengthening fishery activity in selected KVKs with the provision of demonstration units on Portable Carp Hatchery.
- (n) As far as the recommendation of the committee that KVK should work as mini research cum

extension institute is concerned, it is submitted that the activities of the KVK on-farm trials to identify the location specificity of the technology under various farming systems, front-line demonstrations to demonstrate the production potential of improved agricultural technologies on the farmers field, training of farmers to upgrade their knowledge and skill and training of extension personnel to orient them in frontier areas of technology development. A large number of extension programmes are also organized by the KVKs to create awareness on improved agricultural technology among farmers. Seed and planting material produced in the KVKs are made available to the farmers.

(o) As indicated earlier, there are a number of mechanisms of linkage between KVK and ATMA. The Programme Coordinator of KVK is a member of both ATMA Governing Board and ATMA Management Committee. Similarly, the Project Director, ATMA is also a member of the Scientific Advisory Committee of KVK along with the heads of the Line Development Departments at the district level."

COMMENTS OF THE COMMITTEE

1.58 The Committee would like to point out that the Department has ignored the recommendation of the Committee under Recommendation No. 21(J) of their 38th Report, particularly the matter, namely, "As research and education are expensive, the Government should develop a corpus of Rs.1000 crore or more from which a need based investment can be done".

The Committee would like to be apprised of the fate of the recommendation mentioned above which remained unreplied along with the implementation status of all the parts of the Recommendation No. 21(a) to (p) of the 38th Report of the Committee which the Department has accepted in principle but Committee are interested in practical outcome/implementation of all of their recommendations and, therefore, would advise the Department to re-furnish the status (progressive or otherwise) of actual implementation of all these recommendations/issues after every six months from the date of presentation of this Report of the Committee to the Parliament as most of the replies are basically of interim nature and final outcome is still to be achieved and the Committee yet to be apprised of the same.

CHAPTER II

OBSERVATIONS/RECOMMENDATIONS THAT HAVE BEEN ACCEPTED BY THE GOVERNMENT

(Recommendation No. 8)

Need to undertake an effective Programme on Rural System Research (RSR) by ICAR

2.1 The Committee noted that the National Farmers Policy has a number of commitments as far as agricultural research and education is concerned and the first one is to make the farming income oriented.

The Committee desired that DARE/ICAR should seriously ponder upon the ways and means to maximise the income per units of labour, water, land and capital, the four pillars of agriculture. ICAR should also develop the right strategy to help improve the farm productivity income of the small farmers for the reason that over 80 per cent of our 105 million operational holdings are, one hectare and below.

The Committee further recommended that apart from cropping system research and farming system research, ICAR should also undertake an effective programme on the Rural System Research (RSR) which looks at the on-farm and non-farm employment in its totality as the Chinese have done in a very effective way. The RSR programme should concentrate at post harvest technology, agro-processing and value addition at the village level itself and not sending the raw materials to the city, but making jobs available in the village itself in order to provide additional sources of income to both, landless labourers as well as small farmers and their family to bring them out of vicious circle of poverty.

2.2 The Government, in their Action Taken reply have stated as follows:-

"Research Institutes/All India Coordinated Research Projects (AICRP) of ICAR have focused their research in the cropping system and farming system. The proposed Rural System Research (RSR) for the holistic on-farm and non-farm employment of the farming community would be implemented through the relevant cropping system. The ICAR participates in the network project on farming systems in order to generate relevant technologies in this regard. Under AICRP on Post Harvest Technology, efforts have been made to establishing Agro Processing Centres (APC) by in villages for primary processing of farm produce and value addition to the farm produce resulting in

employment and enhanced income to the farmer. This shall be more vigorously pursued as suggested.

The equipment & technologies are developed by various Engineering Institutes keeping in mind the small, medium and large farmers. The equipment developed have resulted in timely and precise application of various inputs thereby resulting in increase in yield and enhanced income to the farmers.

Natural Resource Management (NRM) caters to the farming needs of small and marginal farmers, Council has developed several location specific and cost effective techniques like water harvesting, micro irrigation, *in situ* water conservation, vermincomposting, bio-fertilizers, bio-pesticides and simple farm tools and implements for small land holdings. A publication on "System based low cost production technologies for small farmers" has also been released.

The Fisheries Research Institutes also developed technologies to enhance production and productivity in fisheries and aquaculture sector through judicious utilization of the available resources and inputs to help the fishers and fish farmers in maximizing the returns. Further, the Central Institute of Fisheries Technology (CIFT), as the mandate to address the issues of post harvest technology, fish processing and value addition. Necessary technology demonstration and training programmes have been conducted leading to several entrepreneurs taking to these technologies at industrial level as well as at cottage level through formation of women SHGs in the area.

As far as Krishi Vigyan Kendra (KVK) is concerned, proposal has been included in the EFC of XI Plan for establishment of demonstration units on Minimal Agro-Processing Facilities in the selected KVKs with technological backstopping from relevant AICRP Centres on Post Harvest technology.

National Agricultural Innovation Project launched with funding through World Bank aims at holistic development of Agriculture and allied sector. The projects under this Component would be implemented in 150 most underprivileged districts of the country and is aimed at enhancing the income of farmers and rural employment.".

COMMENTS OF THE COMMITTEE

2.3 For comments of the Committee please refer to Paragraph No. 1.28 of Chapter-I of the Report.

(Recommendation No. 9)

Need to develop low cost and good quality Feed and Fodder for the Livestock through R&D

2.4 The Committee noted that livestock has the most important contribution in the country's economy as well as in the livelihood of million of Indian farmers and their families. The most important input for the existence of the livestock is feed and fodder. The poultry industry is sufferings due to high cost of maize. Similarly, low availability of good quality feed and fodder and its high cost have been noticed throughout the country.

The Committee, therefore, recommended that ICAR should pay due attention to this issue and do the needful R&D to bring out good quality and low cost feed and fodder for all kinds of the livestock of the nation including animal, poultry and fisheries.

2.5 The Government, in their Action Taken reply have stated as follows:-

"ICAR has already given attention on improving the nutritive value of feed and fodder resources and have already come out with technological means to enhance bio-availability of nutrients through incorporation of productivity supportive nutrients as in the case of substitution of area specific deficient minerals. Similarly, efforts are on to detoxify non-conventional feed resources like caster oil cake. Further, to support productivity enhancement through resource based feeding, the concept of total mixed ration and complete feed blocks area being promoted.

Keeping in view the recommendations of the Committee, ICAR has identified the aspect of developing low cost but good quality feed supplements in their XIth Plan Programmes particularly by the institutes dealing with this aspect of livestock feeding.

The Department has also developed several location specific silvi-pastoral agro forestry models, particularly for degraded/ wastelands to augment the production of feed and fodder for livestock including animal poultry and fisheries.

A feed block making machine which makes rectangular feed blocks of 2 square feet has been developed by ICAR without any binding material. These feed blocks are easy to handle and can be easily transported and stored. The Govt. should establish "Fodder Banks" to store fodder for supplying fodder to fodder deficit areas. Efforts have also been made to enrich feed blocks with ammonia to increase its nutritional quality.

Fish feed being identified as one of the thematic area for research, the ICAR has already initiated an Outreach activity on Fish Feed during the XI Plan with objectives to develop cost effective live and formulated feeds for improved larval survival and growth; suitable feeds and feed management strategies for grow out culture systems; possible

biotechnological interventions to improve the feed quality and its utilization in terms of digestibility and efficiency; and setting up pilot scale fish feed mills for scaling up of feed technology to support the aquaculture activities in freshwater, coldwater, coastal and marine ecosystems."

COMMENTS OF THE COMMITTEE

2.6 For comments of the Committee please refer to Paragraph No. 1.31 of Chapter-I of the Report.

(Recommendation No. 11)

National Bureau of Animal Genetic Resources (NBAGR) to maintain and preserve fastly disappearing pure material and pedigrees/local breeds

2.7 The Committee noted that ICAR has been pioneer in genetic resources, conservation and management. But in the area of animal genetic resources, a lot of very good materials were being lost. Unlike National Bureau of Plant Genetic Resources (NBPGR), the National Bureau of Animal Genetic Resources (NBAGR) did not maintain animals; they only had a database on animals as the maintenance of the pure materials and the pedigrees, etc. were left to individual farmers or sometimes to the State Governments.

The Committee, therefore, recommended that NBAGR should be provided about 100 hectares of land and facilities in every State to allow them to maintain and preserve the fastly disappearing pure materials such as *Rathi* breed in Suratgarh (Rajasthan), *Badavari* buffalo breed, *Ongole* and *Nellore* breed and maintain local breeds, etc. which are important for the future and are adapted to local conditions. NBAGR may accordingly enlarge their mandate to incorporate maintenance and preservation of the pure material/local breeds.

2.8 The Government, in their Action Taken reply have stated as follows:-

"The NBAGR/ ICAR has taken the needed initiative to preserve threatened/ endangered and vastly disappearing animal breeds not only through NABGR but also through its species specific institutes in the form of Network / AICRPs programmes. This

issue of conservation of animal genetic resources falls under the area domain of DAH&F operation. Based on the recommendation of the Parliament Standing Committee on Agriculture, ICAR has written to Secretary, DAH&F, Government of India to explore the possibility of accessing 100 hectare of land under Animal Husbandry Departments of various states of the country. Once a provision is made by the different states to allocate

the land, NBAGR would be providing needed technical backstopping the related

advice to ensure the conservation of the Animal Genetic Resource.".

COMMENTS OF THE COMMITTEE

2.9 For comments of the Committee please refer to Paragraph No. 1.34 of Chapter-I of the Report.

(Recommendation No. 12)

ICAR to have Authoritative Estimates of Agrarian Post Harvest Losses and develop better Post Harvest Technologies and Varieties for Processing and Value-addition

2.10 The Committee noted that India's agricultural production base is quite strong but at the same time wastage of agricultural produce is massive. Processing level is very low i.e. around 2% for fruits & vegetables, 26% for marine, 6% for poultry and 20% for buffalo meat, as against 60-70% in developed countries.

The Committee also noted with heavy heart that at present, no authoritative estimates of post harvest losses in various agricultural livestock and fisheries sectors are available. However, on the basis of the general post harvest loss estimates available with the ICAR, the extent of annual post harvest losses in various commodities alongwith their estimates in rupees are as follows:

- a. For grains the losses are about 10% value at Rs 16500 crore
- b. For pulses the losses are about 15% values at Rs 2000 core
- c. For fruits the losses are about 30% valued at Rs 13600 crore
- d. For vegetables the losses are about 30% valued at Rs 14100 crore
- e. For floriculture the losses are about 40% valued at Rs 400 crore
- For livestock and fisheries produce the losses are valued at Rs 8400 crore.

The Committee were deeply perturbed to note that even after existence of many decades, DARE/ICAR had no authoritative estimates of Post Harvest losses till date. The Committee had no choice but to remind the DARE to go through the Appendix I of their Annual Report 2007-08 at page 147 regarding the GoI (Allocation of Business) Rules, the Second Schedule (Rule 3), and especially refer to item at SI.No.14 under Part III which states, "Enquiries and Statistics for the purpose of any subjects allotted to this Department". Having no authoritative estimates/statistics of Post Harvest Losses of agrarian and allied sector produces even after more than 50 years of existence in case of DARE/ICAR, speaks volumes about the irresponsible manner the DARE/ICAR are fulfilling their mandatory responsibilities.

The Committee, therefore, strongly recommended that the DARE/ICAR should not allow any lackadaisical tendencies to undermine their nodal and apex stature at national level and should take immediate steps to collect, compile and analyse data at the earliest at national level, state-wise/UT-wise, in order to have better Planning and R&D to stop wastage of about Rs.55000 crore per annum. The Committee opine that this would also help the concerned Ministries/Departments/Agencies entrusted to develop appropriate technologies and modern storage facilities, area-wise, to prevent the available/avoidable waste. Unless this is done, and the desired post harvest technologies developed and implemented to plug the gaping hole in the basket of agrarian and allied sector produces, all the efforts made by the ICAR to increase productivity and production of agrarian and allied produces will not bear the desired result. The Committee also recommended that ICAR should pay due attention in addressing the problem of non-availability of varieties which are good for processing and value addition as it is high time to have more and more food, fruits and vegetables processed to curb the severe post harvest losses of agrarian produces. To end the prevailing mismatch between production and post harvest technology, the Committee recommended the large number of lab to land demonstrations to familiarise the farming community to agro-processing and value addition, etc.

2.11 The Government, in their Action Taken reply have stated as follows:-

"The ICAR is seized of the matter of post harvest losses of grains pulses and other commodities. Research related to the mitigation and prevention of losses through better storage facilities and commodity treatment with appropriate techniques have been developed as technologies and communicated to the user agencies for preserving the commodities without at minimised loss. So far as processing varieties is concerned,

earlier there was no focus on this. Now focus is there for developing varieties suitable for processing e.g., potato., mango,grapes which have already gone to the users. These technologies have been passed on to KVKs for field demonstrations.

Post harvest losses in livestock sector particularly for milk has been assessed at 3.05% at rural farms, 1.87% at rural (commercial) dairies and at 4.31% at urban dairies. Losses in egg sector has been assessed at 8,87% in some pockets of Uttar Pradesh and that of poultry meat at 3.83%. However, as per the recommendation of the Committee, nation wide data collection initiative shall be taken involving Department of Animal Husbandry Dairying & Fisheries and State Agricultural Universities / State Veterinary Universities during XIth Plan. Similarly, initiative shall also be taken on

demonstrating the evolved post harvest processing technologies of milk for the benefit of the farming community involving the KVKs, wherever feasible technically.

The issues on harvest and post harvest losses in the fisheries sector are being

addressed through the Central Institute of Fisheries Technology (CIFT). The CIFT has already carried out a study to assess the harvest and post harvest losses in marine and inland fisheries in collaboration with the Indian Agricultural Statistics Research Institute (IASRI) under a mission mode project with funding through the National Agricultural Technology Project (NATP). To estimate such losses in Marine Sector, the study was undertaken at the Ernakulam District of Kerala covering thereby the traditional, motorized and mechanized sectors for assessing losses during harvest and for post harvest losses, the processing centres, the wholesale and retail markets, transportation centres and consumers were covered. To assess the losses in Inland Sector, the study was carried out in selected districts of Andhra Pradesh & Orissa covering thereby the aquaculture ponds, the landing centres, the processing units, the markets, transportation centres and the consumers. Further studies to estimate the harvest and post harvest losses at National level are in progress.

The CIFT has developed a number of technologies for minimizing the harvest and post harvest losses through designing resources specific fishing techniques and development of value added products from by-catches, discards and low-value fish and shellfish species. Necessary technology demonstration and training programmes have been conducted leading to several entrepreneurs taking to these technologies at industrial level as well as at cottage level through formation of women SHGs in the area.

As far as the issue related to familiarize the farming community to agroprocessing and value addition is concerned, during the last year, a number of technologies suitable for small scale income generation, value addition and storage were taken up for assessment and refinement on location specific basis. During the same period, 61480 farmers were trained on different aspects of production, processing and value addition. In addition, as indicated earlier, demonstration units on Minimal Agro-Processing Facilities have been proposed during XI Plan.".

COMMENTS OF THE COMMITTEE

2.12 For comments of the Committee please refer to Paragraph No. 1.37 of Chapter-I of the Report.

(Recommendation No. 14)

Horticulture Department of ICAR should initiate a Programme on Micro-Nutrients/Vitamins Demonstrations

2.13 The Committee noted that in developing nation like India there was large amount of micro-nutrient deficiencies in human beings, known in technical parlance as 'hidden hunger'. In the opinion of the Committee, one of the best methods of removing 'hidden hunger' is through the horticulture approach as consumption of horticulture produces has the triple advantage of getting micro-nutrients, vitamins as well as calories.

The Committee, therefore, strongly recommended that there should be a well qualified nutritional expert in the horticulture Division of ICAR who could attend to these issues. The Committee also recommended that Horticulture Department of ICAR should take up a programme on micro-nutrients/vitamins demonstration, particularly, in malnutrition hotspots/areas to have horticulture remedy for a nutritional malady.

2.14 The Government, in their Action Taken reply have stated as follows:-

"The ICAR is well aware about the growing micro and secondary nutrients deficiencies in soils *vis-à-vis* malnutrition in human and animals health through food chain. The Department has developed soil test based balanced and integrated nutrient management packages for major cropping systems in different agro-ecological regions of the country to overcome such situations. The ICAR also imparts trainings and frontline demonstrations to the farmers in this regard.

Out of two posts of Principal Scientists in the ICAR Headquarters, New Delhi, one will be converted as Principal Scientist, (Nutrition) and the same will be advertised and filled through Agricultural Scientist Recruitment Board (ASRB).

Likewise two more posts would be converted as Scientists (Nutrition) one each at Indian Institute of Horticultural Research (IIHR) and Central Institute Subtropical Horticulture (CISH) where the work under this recommendation will be implemented.".

COMMENTS OF THE COMMITTEE

2.15 For comments of the Committee please refer to Paragraph No. 1.43 of Chapter-I of the Report.

(Recommendation No. 15)

Need to fill the vast gap between Research and Extension Activities of ICAR

2.16 The Committee noted that there has always been a huge gap between the research of ICAR and transfer of researched technology to the farmers/ stakeholders resulting in low productivity and production and consequent low income of the farmers.

The Committee, therefore, recommended that DARE/ICAR must look into the ways to establish the strong linkage between Research and Extension by integrating Agriculture Technology Management Agency (ATMA – under DAC) with Krishi Vigyan Kendras (KVKs) so that there is no gap in time and space in relation to transfer of technology and to give the desired boost to productivity and improvement in the income of farmers.

2.17 The Government, in their Action Taken reply have stated as follows:-

"The main extension system is operated by State Government. The scheme on Support to State Extension Programmes for Extension Reforms is implemented by DAC through an autonomous district level institution established by the states in the form of

Agricultural Technology Management Agency (ATMA). There are a number of mechanisms developed for linkage between KVK and ATMA. The Programme Coordinator of KVK is a member of both ATMA Governing Board and also ATMA Management Committee. Similarly, the Project Director, ATMA is also member of Scientific Advisory Committee of KVK, along with the heads of the Line Development Departments at the district level.".

(Recommendation No. 16)

Incorporation of yield /income per hectare columns in all the publications of ICAR and their Institutes/Universities.

2.18 The Committee noted that usually a farmer is able to tell the total quantity of his produce but he may not be able to tell at what cost or whether the crop was viable for him or not because he does not have much knowledge of costing/cropping system.

The Committee felt that this kind of ignorance put the small and marginal farmers into a series of debts and depths of poverty and jeopardise his very existence.

The Committee, therefore, recommended that there is a need for ICAR to instruct all their Institutes and Universities that in their publications, when an Agronomist publishes a paper or when a variety is going to be released or approved, there should invariably be a double column, namely, yield per hectare and income per hectare to enable all the farmers to be aware of the economy of their crops.

2.19 The Government, in their Action Taken reply have stated as follows:-

"All the SMDs have been made aware of this recommendation of the Committee for necessary follow-up action.".

COMMENTS OF THE COMMITTEE

2.20 For comments of the Committee please refer to Paragraph No. 1.46 of Chapter-I of the Report.

(Recommendation No. 17)

Need to do Research to check White Flies Disease in Sugarcane

2.21 The Committee noted that the farmers in Uttar Pradesh, especially of Lucknow and nearby areas who have been growing sugarcane have experienced stagnation in sugarcane production and productivity for the last so many years and all their efforts to increase the production leads to generation/outbreak of White Flies disease in sugarcane.

The Committee, therefore, recommended that ICAR should examine the issue and do the needful research to eliminate White Flies disease in sugarcane in a time bound manner and the Committee may be informed about the action taken at their earliest.

2.22 The Government, in their Action Taken reply have stated as follows:-

"Sugarcane farms in Uttar Pradesh are damaged by Pyrilla insect. Suitable technologies incorporating its release of predator have been recommended by the Indian Institute of Sugarcane Research, Lucknow of ICAR. These predators are made available by Indian Institute of Sugarcane Research, Lucknow and from some of the progressive sugar mills. The damage due to these insects can be effectively checked in sugarcane by constant monitoring and release of predators at appropriate doses as well as by avoiding insecticides spraying.".

(Recommendation No. 19)

Need for Greater Inter- Ministerial Coordination for uplifting Indian Agriculture.

2.23 The Committee were well aware that the overall welfare, prosperity and growth of Farmers and Agriculture & allied sectors was dependent on many factors put together such as, water, power (electricity) for irrigation, financial credit, good quality seeds, good quality fertilizers and pesticides, efficient tools and machinery, availability of latest technology, roads and

transportation facilities, storage and marketing facilities, etc.

The Committee were of unanimous view and recommended that since all these factors were directly related to the jurisdiction of many Ministries/Departments of Government of India, it would be more than essential for all these Ministries/Departments to have the best of ever growing inter-ministerial coordination among themselves with a single-minded zeal to achieve the same objective/goal of agrarian growth and prosperity of Indian farming community.

2.24 The Government, in their Action Taken reply have stated as follows:-

"The Inter-Ministerial Coordination aspect is being ensured by holding Rabi & Kharif ICAR-DAC interface regularly in which issues pertaining to research and interministerial coordination are discussed in length and final outcomes of previous issues are circulated to the States for adoption.

The research output of the various schemes in the ICAR have been collated and brought out as technical bulletins for being communicated to user agencies, line departments and Krishi Vigyan Kendras. Frontline demonstrations of these technologies are taken up in farmers' fields by the respective state Agricultural Universities and ICAR Institutes every year. These results are collated and shared with Department of Agriculture & Cooperation. The goal of agrarian growth and prosperity of Indian Farming Community is the major objective of the outlook and practice of research in the various schemes of the Department.

The KVKs have been established at the district level. Each KVK has a provision of Scientific Advisory Committee to facilitate inter-departmental coordination involving the representations of line departments, financial institution, and media, besides the representatives of research and extension agencies.

In order to have better inter-ministerial co-ordination, ICAR has already taken initiative to have collaborative approach with Rural Development Ministry to take the identified technologies to the farming community. Similarly, intra ministerial co-ordination has also been initiated for livestock sector with DAHD&F separately for the first time. Co-ordination with other ministries, as suggested by the Committee shall be further strengthened.".

COMMENTS OF THE COMMITTEE

2.25 For comments of the Committee please refer to Paragraph No. 1.52 of Chapter-I of the Report.

(Recommendation No. 20)

In-action of DARE/ICAR to produce self-help, smaller version of Synthetic/Adulterated Milk Detection Kit for use of the Common Man

2.26 The Committee in their Recommendation No. 11 of Second Report & Sixth Action Taken Report (2004-05) on DFG (2004-05) of MoA (DARE) had noted with anguish that no action worthwhile seems to have been taken on their specific recommendation to promote and popularise the research in detecting synthetic/adulterated milk and to produce a self-help/low cost diagnostic kit affordable by the common man/consumers of milk.

While examining the DFG(2008-09) of the Department, the Committee enquired that the latest status of the issue regarding development of the self-help/low cost diagnostic kit for the use of the common man and were apprised that NDRI- Karnal has developed simple Platform test for detection of synthetic milk since 15-06-2005. This is a colour based test and detects presence of detergent, which is used as one of the ingredient in preparation of synthetic milk. The test results are available in 5-10 minutes. The adulteration of milk with 2-3% 'synthetic milk' can be detected. This single test is sufficient to detect presence of synthetic milk. The test uses cheap chemicals and cost of chemical per test will be around Rs.2/-. Since, a patent for the process has been applied, names of the solvent and the dye are not mentioned. Transfer of Technology of this test is assigned to National Research and Development Corporation (a Govt. of India Enterprise), New Delhi and is under consideration to be purchased by Mother Dairy.

In response to a point as to what DARE/ICAR has done till date to promote and popularize their research in detecting synthetic/adulterated milk, the Committee were informed that NDRI- Karnal has developed kit for detection of 12 different adulterants and is on sale. Kit is available for Rs.5000/- for any six adulterants. Each reagent for individual adulterants is sufficient for 50 to 100 milk samples. Popularization of kit is done through exhibits in conferences and Kisan Mela.

The Committee strongly deplored and took a serious view of the tendency of the Department in totally sidelining and deliberately ignoring the crux of the recommendation of the Parliamentary Committee on Agriculture, As a matter of fact the Department has been giving incomplete, vague and false assurances year after year, especially w.r.t. producing self-help smaller and economy version of the diagnostic kit presently costing Rs.8600/- for identifying 12

common adulterants in milk and make all out efforts to popularise their low priced smaller version of the Diagnostic Kits which can be gainfully used by the common man.

The Committee were dissatisfied with the in-action of the Department in this regard as it is evident from their statements of action so far that neither the Department had produced a self-help, smaller and economy version of the already produced kit for gainful use of a common man nor they had made all out efforts to popularise the same till date. The Kit they had been popularising through exhibits in conferences and Kisan Mela was the older/original version of the Kit and not the smaller and economic version of the original Kit recommended by the Committee. Moreover, the common man does not go to conferences and Kisan Mela. Thus, the Department has failed to fulfil their own hollow promise that they were making efforts to develop low-cost technology kit affordable for the common man.

Similarly, the action of transfer of technology of simple platform test for detection adulterated milk with 2-3% of synthetic milk has been assigned to NRDC and said to be under consideration for purchase by 'Mother Dairy', Delhi, is going to benefit Mother Dairy and other such bulk producers/sellers of milk only and not the common man as he will not be able to make use of the Platform Test himself in order to know whether the milk he and his beloved family members are consuming is good or bad to drink.

The Committee were of the view that the Department is deliberately avoiding to produce the smaller and economy version of the diagnostic kit for the use of the common man for the reason that they are not ready to face the truth about the evil of synthetic/adulterated milk that has grown to enormous proportion. In case the actual data regarding availability of pure milk and synthetic/adulterated milk are researched and made available to public, then, the number one position in milk production, India is enjoying and DARE/ICAR claims to bag the credit for the same, will prove to be nothing but a tragic unhealthy illusion/eye-wash.

The Committee, therefore, strongly recommended that the DARE/ICAR should immediately take action in this regard and come out with a self-help, smaller and economic versions of the diagnostic kits for all the 12 common milk adulterants with a test carrying capacity ranging from 1, 2, 3, 4, 5 and 10 tests per reagent/solvent for the use of the common man and the same kits should be made available for sale at all the Mother Dairy Milk/Vegetable Booths as well as Delhi Milk Scheme Booths/Chemist shops and also in other States/UTs. Unless, this is done, the problem of synthetic/adulterated milk will continue to grow further and ruin the health of every milk and milk products consumer in India and the dream of healthy India will never become a reality.

2.27 The Government, in their Action Taken reply have stated as follows:-

"As per the recommendation of the Committee, immediate steps would be taken, depending on the feasibility and safety issues, to come out with self-help, smaller and economic version of diagnostic kits to diagnose milk adulterants.".

COMMENTS OF THE COMMITTEE

2.28 For comments of the Committee please refer to Paragraph No. 1.55 of Chapter-I of the Report.

CHAPTER III

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

(Recommendation No. 10)

Need for conversion of Krishi Vigyan Kendras (KVKs) into Krishi and Udyog Vigyan Kendras (KUVKs)

3.1 The Committee noted that there is growing mismatch between agrarian production and post harvest technologies. Although ICAR has some post harvest technology institutes, the weakness that is felt in villages is the post harvest operation, that is, to provide complete range of threshing, processing and value addition to primary products implements and techniques at the village level.

The Committee, therefore, recommended that ICAR should have a post harvest technology wing in every Krishi Vigyan Kendra and KVKs should become a model Krishi Udyog Vigyan Kendras in the country and National Agriculture Innovative Project should be implemented through KVKs and Agriculture Technology Management Agencies at district levels.

3.2 The Government, in their Action Taken reply have stated as follows:-

"Technologies are available for processing of farm produce. Recently to promote post harvest technologies Department of Agriculture & Cooperation has started a scheme in this regard. Few post harvest equipment have been identified for conducting Front Line demonstrations by the cooperating centres of All India coordinated Research Project(AICRP) on Post Harvest Technology(PHT) at farmers' field for adoption by the farmers.

The KVK aims at assessment, refinement and demonstration of technology / products. Keeping in view the very basic objective of establishment of KVKs in the country, the recommendation of the Committee to redesignate the Krishi Vigyan Kendra as Krishi Udyog Vigyan Kendra is not feasible with the present available resources including manpower. As indicated in the reply to Recommendation No. 8 above, proposal has been included in the EFC of XI Plan for establishment of demonstration

units on Minimal Agro-Processing Facilities in the selected KVKs with technological backstopping from relevant AICRP Centers on Post Harvest technology.

As far as involvement of KVKs in implementing National Agricultural Innovation Project is concerned, a number of projects under Research on Sustainable Rural Livelihood Security are being implemented involving KVKs.".

CHAPTER IV

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

(Recommendation No. 1)

Need for increasing DARE's allocation equivalent to 1 to 2 percent of AGDP.

4.1 The Committee had noted that the Department of Agricultural Research and Education had been allocated Rs.12,023 crore as the total XI Plan outlay against the proposed XI Plan outlay of Rs.12,176.40 crore. The proposed outlay for the XI Plan is even Rs.3,823.60 crore less than the outlay proposed by them for the X Plan which was Rs.16,000 crore. The Planning Commission's constituted XI Plan Working Group on Agricultural Research and Education had proposed an outlay of Rs.31,672 crore for DARE/ICAR.

The Committee had always been requesting year after year for an increase in the allocation equivalent to 1 to 2 per cent of agricultural GDP for the conduct of research in this most important sector but the request seems to have fallen on deaf ears. The Committee were pained to observe that the Planning Commission and the Ministry of Finance have not so far given any proper attention to the recommendations of the Parliamentary Standing Committee on Agriculture in this regard.

The Committee, therefore, strongly and in unequivocal terms recommended that the Planning Commission must provide higher allocation equivalent to 1 to 2 percent of AGDP as recommended by them in their earlier Reports. However, this must be accompanied by accountability in terms of practical results of value to overcome the prevailing technology fatigue. Additional Funds may be earmarked for the suggestions made by the Committee in this Report.

4.2 The Government, in their Action Taken reply have stated as follows:-

"The Department had restricted its XI Plan proposal to Rs.12176.40 crore in the background of the various guidelines circulated by Planning Commission which were to be observed while formulating XI Plan proposals of DARE/ICAR. The Department was asked to formulate three scenarios in respect of the proposals of XI Plan outlays i.e.

reflecting an increase of 5% per annum with respect to the terminal year of X Plan; and similarly other two scenario with an increase of 10% per annum and 15% per annum, respectively. Accordingly the Department did not project higher financial requirement. The XI Plan working

group constituted by Planning Commission itself had recommended Rs.31,672 crore as XIth Plan outlay for DARE/ICAR but the Planning Commission provided only Rs.12,023 crore only.

The recommendation of the Committee that the Department should be provided higher allocation equivalent to 1 to 2 percent of AGDP was forwarded to Planning Commission, which responded that "For the 11th Five Year Plan an amount of Rs.12,023 crore has been allocated to the ICAR. The allocation was entirely made on the recommendation of DARE/ICAR. In this regard, as mentioned earlier, DARE/ICAR was asked by the Planning Commission to make projections within the parameters set by them.".

COMMENTS OF THE COMMITTEE

4.3 For comments of the Committee please refer to Paragraph No. 1.7 of Chapter-I of the Report.

(Recommendation No. 2)

Insufficient allocation to DARE in 2008-09

4.4 The Committee had noted that the Department was given Rs.1,760 crore during 2008–09 against the proposal of Rs.2646.79 crore. The outlay of this Department during 2007-08 was Rs.1,620 crore against the proposal of Rs.1,945.50 crore. The percentage of increase in Plan allocation made for 2008-09 over the year 2007-08 was 8.64 per cent.

The Committee also noted note that the increase in the cost of inputs-machinery, raw-material, maintenance and other running research expenses - had been generally more than the annual inflation. In real sense, the Budgetary Allocation may not allow the Department to address all research issues adequately as had been confirmed by the Department.

In Committee's opinion, the required real break-through for increasing the agricultural production and productivity to achieve the set targets of agro-socio-economic development during the XI Plan could only be achieved by actual agrarian research work and by the quickest possible dissemination of relevant information to the people engaged in agriculture and allied activities. Therefore, the proposed targets of agro-socio-economic development should be directly proportionate to the plan outlay for research and educational activities of DARE/ICAR. But, unfortunately, the right proportion between these two factors was not visible in the funds allocated to DARE/ICAR and the Committee strongly felt that positively upward investment in agrarian R&D of ICAR was most essential requirement, if the proposed growth target was to be achieved in time.

The Committee, therefore, strongly recommended that the DARE/ICAR should be provided with Rs.2646.79 crore by the Planning Commission and the Ministry of Finance for the year 2008-09 as per their original proposal.

4.5 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission responded that "Regarding insufficient allocation in 2008 – 09, it is pertinent to mention that the resources were allocated keeping in view of the other sectors' requirements."

COMMENTS OF THE COMMITTEE

4.6 For comments of the Committee please refer to Paragraph No. 1.10 of Chapter-I of the Report.

(Recommendation No. 3)

Urgent need to provide the status of Non-lapsable Funds to Budgetary Allocations of DARE/ICAR

4.7 The Committee noted that the Central Non-lapsable Fund Pool was created by the Government for the welfare of the North-Eastern States. All the Ministries/Departments were directed to earmark 10% of their respective allocation under the Major Head 2552 – lump sum provision for projects/schemes in NE & Sikkim, every year and the unspent amount under this Major Head does not lapse at the end of the financial year and remains available for its usage for the same cause.

The Committee were of the considered view that this special treatment/privilege given to North-Eastern States & Sikkim should be extended to all the schemes/projects of DARE/ICAR being implemented in other States/UTs as the similar agro-socio-economic and climatic conditions and topography of agricultural land existing in North-Eastern States, also existed in most of the other States/UTs.

The Committee strongly recommended that since 70% of our country's population is directly engaged in agricultural & allied activities and produce the food for themselves and for other 30% population, therefore, the Government and their appraisal agencies should implement the non-lapsable fund strategy for DARE/ICAR from this year onward, for anything can wait but agriculture cannot wait for want of adequate funds and extending this provision to DARE/ICAR is going to be a real breakthrough in finding a remedy for a perennial vicious imbalance of demand and supply of funds

in which every year more funds required/demanded by the Department but lesser funds are allocated by the Planning Commission/Ministry of Finance.

4.8 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission/ Ministry of Finance. The Planning Commission responded that "On the status of non-

lapsable funds to budgetary allocation to DARE / ICAR on the ground that 70% of our country's population is directly engaged in agriculture and allied activities and produce the food for themselves and also rest of the 30% population. In this context, it is to be mentioned that irrigation, road connectivity and transport, energy, land reforms and other basic infrastructure have a lion share in enhancing foodgrain production. Whereas, the ICAR's role is limited to technology innovations."

COMMENTS OF THE COMMITTEE

4.9 For comments of the Committee please refer to Paragraph No. 1.13 of Chapter-I of the Report.

(Recommendation No. 4)

Delays in releasing of RE/BE by the Department to their respective Institutes/NRCs/PDs.

4.10 The Committee noted that RE Plan & Non-Plan (2007-08) was reported to have been received from MoF on 4.1.2008. ESM (SMD) was communicated RE (Plan) on 8.2.2008 by the Department, i.e., after 34 days of receiving the same from MoF. Similarly, Education and Extension (SMDs) had been communicated RE(Plan) after 18 and 21 days, respectively, from the date of receiving from MoF, viz., 4.1.2008, while 4 SMDs out of 9, have been communicated only after 6 days of receiving from MoF.

The Committee noted that during Evidence of the Representatives of MoA(DARE), MoF and Planning Commission before this Committee, held on 22.11.2001, the then, Secretary(DARE) had categorically pointed out about the procedural delays in receiving RE from MoF which did not allow the Department to utilize the scarce financial resources optimally and huge unspent amounts/balances remain. Similar views/suggestions were extended by the Department in a written reply to the specific points raised by the Committee about the entire budgetary procedure and practices being followed by the Department and if any meaningful change/remedies required to be in place. But ironically, now the Department in reply to similar points about the procedural budgetary delays stated that 'there has been no procedural delay and the present procedure is working well.'

The Committee were of the view that the above volte-face regarding budgetary procedural delays and meaningful changes required, was an actual turnaround engineered by the Department in a vain attempt to deviate the Committees' attention from the actual problem of late releasing of funds from MoF or the Department to the actual end-users, i.e., concerned institutes/NRCs/PDs of ICAR.

The Committee, therefore, deplored the tendency of the Department to give hollow assurances every year that they have been making best efforts to make the RE/BE funds available to the concerned institutes within a week, rather they are taking about 34 days time to make the RE available to the respective institutes.

The Committee strongly recommended that the Department should take less than a week's time to release the funds to all the concerned institutes/NRCs/PDs from the date of receipt of funds from MoF for optimal utilisation of the scarce funds by the concerned institutes.

4.11 The Government, in their Action Taken reply have stated as follows:-

"The concerns of the Committee have been brought to the notice of all the Subject Matter Divisions of DARE / ICAR. It may further be highlighted that after receiving BE / RE communications from Planning Commission and Ministry of Finance respectively, the Department has to undertake a number of processes before finalizing the institutes / NRCs / PDs wise allocations. This involves first distributing the total outlay sector-wise and subsequently after getting it approved from Competent Authority, it is informed to concerned Subject Matter Divisions. Thereafter, depending upon the total budget at their respective disposal, the each Subject Matter Division distribute it for each of the concerned institute / NRC / PD, etc. after prioritising and assessing the realistic requirement of each constituent unit. This distribution also needs approval of Competent Authority and even after this, the SMDs further distribute the institute/NRC/ PD wise fund into various heads of expenditure (pay & allowances, TA, contingencies, HRD, equipment, works, library, etc.). This final list of institute-wise/head-wise allocations is subsequently forwarded to the Finance Division for releasing the funds (BE / RE).".

COMMENTS OF THE COMMITTEE

4.12 For comments of the Committee please refer to Paragraph No. 1.16 of Chapter-I of the Report.

(Recommendation No. 5)

Denial of necessary wherewithal for setting up state-of-the-art facilities to meet the emerging new challenges

4.13 The Committee had been informed that the DARE/ICAR had a number of institutions/laboratories, which were more than thirty years old. It was felt necessary that a one time catch-up grant may be sought from the Planning Commission so that the requirement of renovation of old infrastructure and up-gradation/replacement of obsolete equipment could be met.

The Department projected a requirement of Rs.1000 crore as One Time Catch up Grant for the entire Tenth Plan Period. The Planning Commission did not indicate any provision for the same while communicating the Tenth Plan outlay of the Department, which was pegged at Rs. 5368 crore. Thereafter, the Department consistently proposed a requirement of Rs.200 crore as Catch up Grant in each year i.e. 2002-03, 2003-04 and 2004-05. The response of the Planning Commission to these proposals was 'the catch up grant which was meant for upgrading the research facility of ICAR's institutions had already been taken care of while approving the proposals during Tenth Five Year Plan'. Due to the clear-cut stand taken by Planning Commission on this issue, the Department did not pursue the matter further.

The Planning Commission in their guidelines for formulation of XI Five Year Plan had indicated that in the Plan budget critical repair and maintenance upto 15% of the plan budgetary support could be included.

The Committee noted that the Department's fund requirements, based on activities and programmes, were said to be projected in totality, thus need for catch up grant were also addressed in their projection, however, there was a pronounced gap of Rs.886.79 crore between the projected/proposed amount by DARE/ICAR and the amount allocated to them by the Planning Commission/Ministry of Finance. The Department had proposed/projected an amount of Rs.2646.79 crore and they got Rs.1760.00 crore as BE 2008-09.

The Committee were of the considered view that denial of long-felt and essentially needed One-Time Catch up grant to DARE had hamstrung our agricultural research institutes and their R&D activities as the output could have been much better in case their projected requirement of Rs.1000 crore during Xth Plan was provided to them for replacement of old machinery and equipment and for setting up state-of-the-art facilities to meet the emerging new challenges.

The Committee had strongly deplored the tendency of the Planning Commission and the Ministry of Finance for imposing drastic cuts as high as upto 35 to 40 per cent on the amount projected/demanded by the Department as per their pressing needs as in the instant case, the

denial of Rs.886.79 crore during 2008-09 would not allow the Department to address the needs to be fulfilled from one time catch-up grant out of Rs.1760.00 crore allocated to them as BE 2008-09.

The Committee desired a clarification from the Planning Commission as to how they can expect the Department to follow the Guidelines of the Planning Commission that in the Plan Budget critical repair and maintenance upto 15% of the Plan budgetary support could be included by the Government and on the other hand, they themselves had imposed a cut of about 35% or so on the projected/proposed amount of the Department year after year.

The Committee strongly recommended that the Planning Commission and the Ministry of Finance should provide much needed one time catch up grant as per the latest requirement during the XIth Plan or at least provide Rs.886.79 crore more to the Department during 2008-09 so that the projected need for catch up grant which was addressed in their projected amount of Rs.2646.79 crore, was granted to them. Immediately, in the Budget of 2008-09 itself, an additional sum of Rs.100.00 crore may be provided to IARI, New Delhi, particularly for improving farm infrastructure with reference to irrigation.

4.14 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission responded that "For providing one time catch up grant i.e. Rs. 886.79 crore for renovation of infrastructure; the Planning Commission is in support of creation / renovation of ICAR institutes as per laid down procedure"

The guidelines of Planning Commission circulated in October 2006 indicated that in the Plan budget, critical repair and maintenance upto 15% of the plan budgetary support can be included. The Department has been able to address the modernization of infrastructure and replacement of obsolete equipment / research facilities to the extent possible through its Annual Plan allocation.".

COMMENTS OF THE COMMITTEE

4.15 For comments of the Committee please refer to Paragraph No. 1.19 of Chapter-I of the Report.

Recommendation No. 6)

The Planning Commission disagreed to provide Rs.1130 crore to DARE/ICAR under the National Food Security Mission (NFSM)

4.16 The Committee had noted that the National Food Security Mission a centrally sponsored scheme has been launched from 2007-08 with an objective to enhance the production of rice, wheat and pulses by 10, 8 and 2 million tones respectively during the 11th Plan period.

ICAR is involved in providing technical backstopping in this project in terms of providing details about the newly released varieties/hybrids along with the production and protection technologies in implementation of this scheme. Further, ICAR is also involved in the production of breeder seed as per requirement. The Council has also been involved in various monitoring implementation Committees of the project.

Although DARE/ICAR has allotted sufficient funds to address various researchable issues related to rice, wheat and pulses during XI Plan, as a compliment to further augment the research infrastructure and programme, they have submitted a scheme under the National Food Security Mission entitled Mini Mission I – Wheat, Rice and Pulses for Rs.1130 crore to the Planning Commission. However, no additional allocation under this component was agreed to.

The Planning Commission's reasoning for not agreeing to the Department's demand was that more than Rs. 385 crores had already been provided for components related to ICAR and ICAR/DARE's regular allocation which itself should be able to take care of the requirement of National Food Security Mission (NFSM).

The Committee again strongly deplored the tendency of the Planning Commission to give hollow promises year after year that the proposals/initiatives of the Department in the form of SFC/EFC/CCEA would be considered favourable to provide need based allocation. As in the instant case, the DARE/ICAR had submitted a scheme under the NFSM entitled Mini Mission I – Wheat, Rice and Pulses for Rs.1130 crore to the Planning Commission and in turn, rather than favourably considering the scheme, the Planning Commission had extended the reason for not agreeing to it.

The Committee were unable to comprehend as to why the Planning Commission was determined to deter the desired and required better pace of agrarian R&D for which the ICAR has been entrusted with the responsibility. Moreover, expectations of the millions of people from DARE/ICAR to usher India into a Second Green Revolution by providing total food, feed and fodder security for the present and future times will continue to lurk in the dark for want of favourable consideration by the Planning Commission/Ministry of Finance of the schemes/initiatives submitted by DARE/ICAR.

The Committee, therefore, strongly recommended that ICAR should be provided the additional amount of Rs.1130 crore for

their scheme entitled Mini Mission I – Wheat, Rice and Pulses under NFSM in the overall interest of the nation's food security.

4.17 The Government, in their Action Taken reply have stated as follows:-

"The Department had forwarded this recommendation to Planning Commission / Ministry of Finance. The Planning Commission in its reply stressed that the NFSM was being implemented in the potential area by utilizing existing technology. However, the department of Agriculture & Cooperation, (DAC) which is implementing this scheme, asked for the incorporation of researchable issues in the revised EFC document of NFSM. In pursuance thereof, the department has submitted a projection of Rs 1130 crore to DAC."

COMMENTS OF THE COMMITTEE

4.18 For comments of the Committee please refer to Paragraph No. 1.22 of Chapter-I of the Report.

(Recommendation No. 13)

Need for operationalization of the concept of every Agriculture Scholar becoming an Entrepreneur

4.19 The Committee noted that the main aim of Agricultural Universities was to impart education and ensure that every scholar and entrepreneur had the ability to go into entrepreneurship. Self-employment opportunities for an agricultural graduate are minimal as these days many of them have to appear for the IAS or IPS examination or study MBA afterwards to get job in Banks/Administration. The Agriculture and Animal Husbandry subjects should be restarted teaching at schools and colleges. In Punjab and Haryana, these subjects used to be taught till late 70s.

The Committee opined that young people would join the agriculture and allied sector only if it becomes economically rewarding and diversified. Home Science colleges should be involved in much more intensive way in this area apart from veterinary and fishery science.

The Committee, therefore, strongly recommended that ICAR should appoint a technical group to look into the ways and methods of operationalisation of the concept of every agriculture scholar becoming an entrepreneur. This technical group may consider revamping the syllabus of agriculture, restructuring the agri. clinics and agri. business centres meant for providing self-employment opportunities for agricultural graduates, integrating MBA ingredients in the Agricultural University itself so that business and agriculture technology can go together. Every State Agricultural University should set up a Placement Cell for self-employment (Agri-

Clinic/Agri-Business) of their agricultural graduates/scholars for familiarising them with opportunities for gainful remunerations.

4.20 The Government, in their Action Taken reply have stated as follows:-

"In the ICAR curriculum review has been made and it is in utilitarian mode. National Academy of Agricultural Research Management (NAARM) will also be undertaking efforts to develop special course in agri-business.

The Placement cells are in operation in most of SAU's and ICAR is extending financial aid to these cells to meet out recurring contingent expenditure.".

COMMENTS OF THE COMMITTEE

4.21 For comments of the Committee please refer to Paragraph No. 1.40 of Chapter-I of the Report.

(Recommendation No. 18)

Need to do research on developing smaller size of Potato Seeds

4.22 The Committee noted that farmers of other States who bring potatoes from Himachal Pradesh used the potatoes for sowing by cutting it into half and planting germinating portion. This traditional way of sowing half of the potato, increase the quantum and weight of the seeds required. The Committee felt that if the needful research could be undertaken by ICAR to reduce the size of the potato seeds and any success in this project would certainly reduce the seed cost owing to increase in the number of smaller potato seeds per quintal.

The Committee, therefore, recommended that ICAR should undertake this project on developing smaller size of potato seeds and they should be informed of the action taken at the earliest. In addition, research and development of True Potato Seed (TPS) technology should be intensified.

4.23 The Government, in their Action Taken reply have stated as follows:-

"About 40-60% cost of potato cultivation is incurred on potato seed. This is due to high seed rate (2.5 to 3.5 t/ha) in potato. Cutting of seed tubers is not advised

because this may spread tuber borne diseased to healthy tubers. The recommended seed size in potato is 40g. However, at a recommended spacing (row to row 60 cm and tuber to tuber 20 cm, the proportion of seed size tubers is less. Seed size can be manipulated by reducing planting distance and also giving shorter bulking time by cutting haulms between 70 to 90 DAP depending upon maturity of the

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COMMENTS OF THE COMMITTEE

4.24	For comments	of the	Committee	please refe	r to l	Paragraph	No.	1.49 of	Chapter-I	of the
Report										

CHAPTER V

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

(Recommendation No. 7)

Urgent need to set up a high-level committee of scientists and practising farmers

5.1 The Committee were of the opinion that technology had been and would be the prime mover of change not only in our country, but everywhere in the world.

The Committee noted that the nation was passing through technology fatigue, stagnation and decline in productivity/yield and a number of related issues were bracketing India into agrarian crisis which the nation can ill-afford to neglect merely for want of adequate timely action from DARE/ICAR.

The Committee, therefore, recommended that the Prime Minister as head of Agriculture Coordination Committee and Union Minister of Agriculture being President of ICAR should set up a High-level Committee of Scientists and practising farmers from different parts of the country to suggest methods of overcoming their problems, technology fatigue, to bridge the gap between potential and actual yield and agrarian crisis the country is facing. The Committee further recommended that Special Cadre of Agriculture Scientists for Agricultural Research in North Eastern States including Sikkim may be created so that the Research Institute of ICAR in that area do not suffer from the malady of shortage of scientists.

5.2 The Government, in their Action Taken reply have stated as follows:-

"ICAR has an All India cadre of scientists called Agriculture Research Service (ARS). Posts at entry level are filled on the basis of All India competitive examination conducted by the Agricultural Scientists Recruitment Board (ASRB). Vacancies in higher grades of scientists i.e. Senior Scientist and Principal Scientist at different institutes are advertised by the ASRB indicating the name of the institute in the advertisement and selection is made on the basis of interview. ICAR has following institutions in the NE Region:

- ICAR Research Complex for NEH Region, Barapani with a centre in each state of NEH Region
- 2) National Research Centre (NRC) on Mithun
- 3) NRC on Pig
- 4) NRC on Orchid
- 5) NRC on Yak

Candidates selected on the basis of Agricultural Research Services examination are posted to the institutes including those situated in NE region. According to in-built provision in the policy, the scientists who have spent a specified period in this region are eligible for transfer to institutes outside the NE region.

In addition to regular batches of ARS, ICAR has conducted a special recruitment drive to fill up vacant posts in NE Region as a result of which 53 scientists have been posted.

ICAR scientists posted in NE Region are also eligible for financial incentives for working in this region in accordance with Govt. of India policy on the subject. These incentives coupled with the provision under which they can seek transfer to outside the region after a specified period, gives an impetus to the newly recruited scientists to work in this region.

Interaction for new ideas, capitalizing on innovations from a wider canvas and development of first rate human resource is already in progress. The research capabilities of the institutes in the NE region have progressed considerably and the ICAR has consistently provided all possible technologies and resources to fulfil the needs of these institutes. The scientists at the beginning of their career are attracted to work at such institutions in the interest of their own professional career.

As regards the perception that incidence of scientific posts lying vacant in NE region is higher than in rest of the country, the fact is that the proportion of scientific posts lying vacant in NE region is nearly same as in rest of the country.

As regards the suggestion to create a special cadre of Agricultural scientists for NE states including Sikkim, it is stated that an isolated cadre for NE region may not be viable due to following reasons:

- (i) A person can be motivated to serve in difficult areas for some time provided he knows that after a specified period he would be eligible for a posting outside the region. Among those who qualify the ARS examination there may be few takers for an isolated cadre for NE region;
- (ii) Mobility of scientists is good for scientists as well as the organisation. An isolated cadre will be deprived of the benefit of mobility on all India basis; and
- (iii) Such a cadre would distort the ARS system.

In view of above, it is felt that no useful purpose is likely to be served by creating a separate cadre for NE region rather such a move may prove to the counter productive.

The relevant recommendation is forwarded to Department of Agriculture and Cooperation (DAC) for further

necessary action as that department is co-ordinating the work of Agriculture Coordination Committee.".

COMMENTS OF THE COMMITTEE

5.3 For comments of the Committee please refer to Paragraph No. 1.25 of Chapter-I of the Report.

(Recommendation No. 11)

National Bureau of Animal Genetic Resources (NBAGR) to maintain and preserve fastly disappearing pure material and pedigrees/local breeds.

5.4 The Committee noted that ICAR has been pioneer in genetic resources, conservation and management. But in the area of animal genetic resources, a lot of very good materials were being lost. Unlike National Bureau of Plant Genetic Resources (NBPGR), the National Bureau of Animal Genetic Resources (NBAGR) did not maintain animals; they only had a database on animals as the maintenance of the pure materials and the pedigrees, etc. were left to individual farmers or sometimes to the State Governments.

The Committee, therefore, recommended that NBAGR should be provided about 100 hectares of land and facilities in every State to allow them to maintain and preserve the fastly disappearing pure materials such as *Rathi* breed in Suratgarh (Rajasthan), *Badavari* buffalo breed, *Ongole* and *Nellore* breed and maintain local breeds, etc. which are important for the future and are adapted to local conditions. NBAGR may accordingly enlarge their mandate to incorporate maintenance and preservation of the pure material/local breeds.

5.5 The Government, in their Action Taken reply have stated as follows:-

"The NBAGR/ ICAR has taken the needed initiative to preserve threatened/ endangered and vastly disappearing animal breeds not only through NABGR but also through its species specific institutes in the form of Network / AICRPs programmes. This

issue of conservation of animal genetic resources falls under the area domain of DAH&F operation. Based on the recommendation of the Parliament Standing Committee on Agriculture, ICAR has written to Secretary, DAH&F, Government of India to explore the possibility of accessing 100 hectare of land under Animal Husbandry Departments of various states of the country. Once a provision is made by the different states to allocate the land, NBAGR would be providing needed technical backstopping the related advice to ensure the conservation of the Animal Genetic Resource.".

COMMENTS OF THE COMMITTEE

5.6 For comments of the Committee please refer to Paragraph No. 1.34 of Chapter-I of the Report.

(Recommendation No. 21)

Some other issues related to ICAR

5.7 The Committee felt (a) that there was need to organize frequent Krishi Vigyan Melas at District level; (b) that there was need to find remedies for diseases of Honeybees in HP & Uttrakhand; (c) that there was need to train farmers of disaster-prone areas; (d) that there was a dire need to restart teaching agriculture and animal husbandry as subjects in schools and colleges from class VIII onwards to attract the youth towards these sectors of economy; (e) that there was need to take research to small farmers through extension programmes, such as Seminars/Workshop/Orientation programmes conducted agricultural to be bν universities/colleges at regular intervals;(f) that there was need to have exclusive KVKs on Fisheries for imparting the latest technical training skills on the basis of learning by doing, to the local fishermen from capture to consumption and processing; (g) that water scarcity in the country was going to be the biggest challenge in near future and there is need to develop biotic and abiotic (heat-resistant) seeds requiring less water to germinate in wake of Global Climate Change; (h) with regard to bio-security, either Bhopal or some other institute should become the National Centre for Agricultural Bio-security and it should be strengthened. We should have a network of institutes, a single institution will not be enough. We should have them in all the major agro-climatic regions in the hub and spoke model; (i) the other facility badly required was an off-shore quarantine Islands such as in Lakshadweep Islands or Andaman & Nicobar Islands where no human being reside, where we can have absolutely safe testing facility; (j) we should take care the financial and technical needs of mother institutions such as IARI and Agricultural Universities. The Department should immediately provide Rs.100.00 crore to IARI, New Delhi during 2008-09 for improving farm infrastructure with reference to irrigation. As research and education are expensive, the Government should develop a corpus of Rs.1000 crore or more from which a need based investment can be done; (k) the State Agricultural Universities should not be fragmented into agriculture, animal husbandry, fisheries and horticulture, etc. rather they should work for the farming system as a whole. ICAR should also coordinate with other Departments of the Government of India to collect and disseminate knowledge of its research in different agricultural fields to them for holistic development of agriculture and allied sectors, so as to focus on more jobs, income security

and work security and people's livelihood in rural agri-system; (I) as water table is going down and irrigation facilities are dwindling, ICAR should focus their research on developing seeds which are water-resistant, weed resistant and of high yield variety; (m) the climate change should be taken up as a challenge to develop new varieties of wheat, rice, pulses, oilseeds and horticulture crops. The Agricultural universities should be given more financial help to do research in this direction; (n) KVK should work as mini research cum extension institute which may directly be connected with the farmers of the area; (o) KVKs and Agricultural Technology Management Agency should coordinate to disseminate knowledge about latest agricultural technology and research to the farmers of that area; and (p) that there is need to establish a Central/Regional Research Institute of Temperate Horticulture, in addition to the already existing Institute at Srinagar (J&K), to cater to the problems of the farmers cultivating horticultural crops at the height of 3000 feet to 5000 feet in Uttrakhand/HP and other hilly areas as 12% of the total crop area is lying in Himalayan Region and not more than 2% of the same has been tapped so far.

5.8 The Government, in their Action Taken reply have stated as follows:-

"As this Recommendation is multi-disciplinary and also involves Planning Commission etc., the response/ implementation status for each is as follows:

Planning Commission: The Department had forwarded this recommendation to Planning Commission/Ministry of Finance. The Planning Commission responded that "The other issues which are related to Administrative and Coordination. The Planning

Commission has always supported coordination and managerial for effective delivery of technology for its realization in the field."

Crop Science:

- (a) All the ICAR Institutes are organizing Krishi Vigyan Melas every year during the crop season at their campuses and on farms. The concerned line departments of the State, progressive farmers and farmers from the respective States are brought together for exchange of information on new technologies including recently released crop varieties and also for mitigation of their various problems
- (b) The technologies developed to prevent various diseases including mites in honeybee colonies have been developed. These technologies for commercial

- (c) apiculture are transferred to the bee keepers of Himachal Pradesh and Uttarakhand through the respective States Agricultural Universities. The bee keepers are also invited for training to these campuses every month for familiarizing the practical approaches to practice these technologies. Further fortification of research in this regard is also proposed in this XIth Five Year Plan period.
- (g & I) Research efforts to develop crop varieties having resistance to various key biotic stresses and abiotic stresses such as heat resistance, submergence etc. are intensified in the 11th Five Year Plan period.

Horticulture:

(p) CITH, Srinagar has already a station in Mukteswar which will further be strengthened to cater to the needs of hilly areas.

Natural Resource Management:

(c, g & m) Keeping in view the growing water scarcity in the country, the Council has already given emphasis on developing drought/ heat resistant varieties. Besides, a Network project on *Impact of climate change on agriculture including vulnerability, adaptability and mitigation measures* is already in operation. The council has also formulated contingency crop planning to cater natural disaster like cold/ drought/ flood etc.

Department is concerned with global climate change for which in the recent ICAR-DAC interface it has been decided that outcome of the National Network Project on "Climate Change Adoption" may be summarized and provided to ICAR so that same could be circulated.

The Council is actively considering to establish a National Institute on abiotic Stress Management in Agriculture during the current plan.

Fisheries:

The Fisheries Research Institutes have initiated programmes on water budgeting in aquaculture and also on impact of climate change on the fishery resources and ecosystem stress management. The Institutes have taken up programme to

develop bio-security and bio-safety protocols & food- safety guidelines for hatcheries & grow out culture systems and post harvest sector.

Animal Science:

- (j) KVKs attached to Animal Science Institute are arranging such melas periodically in addition to organizing 'hands on' training program. Livestock shows/ melas are also arranged from time to time with Kisan Gosthi programme where scientist- farmer interacts. However, steps will be taken, as suggested by the Committee, to increase the frequency of such melas.
- (e) Most of Animal Science Institutes are doing this in the form of Kissan Mela, Kissan Sanmelan, Scientist-Farmer interface, Doordarshan programmes, documentary films. However, periodically of such programme shall be increased as advised by the Hon'ble Committee.
- (h) High Security laboratory at Bhopal is being strengthened to act as referral institution to undertake investigations of bio-safety and bio-security. Further, BSL 2,3 and 4 laboratories are being proposed at different locations like IVRI, Izantnagar, (UP) IVRI, Mukteshwar (Uttrakhand), IVRI Bangalore (Karnataka) PD ADMAS, Bangalore (Karnataka), PD FMD (Bhubaneshwar), NDRI, Karnal (Haryana), NRC Equines & Vety. Type culture, Hisar (Haryana) during the XI Plan. In addition to this, DAHD&F is also learnt to have proposed such laboratories at regional level.
- (i) DAHD&F, is attending to this issue. The need to identify off shore islands for quarantine measures shall be taken up with them during the interface meeting proposed shortly.

Education:

- (d) DARE/ ICAR endorses the recommendations of Committee and it will be discussed at appropriate for a.
- (k) ICAR also holds this view. However, this being a state subject, the issue would perhaps need in depth deliberation at appropriate level.
- (j) The Government on Economic Affairs approved Rs. 60.25 Crores for IARI during Xth Plan, of which Rs. 48.75 Crores were actually utilised. For Xlth Plan Rs. 171.00 Crores have been earmarked for this premier institution, which is an

increase of 184 percent.

Extension:

- (a) A number of kisan melas and exhibitions are organized by KVKs for creating awareness on improved agricultural technology among the farmers at district level. During the last year, 30.18 lakh farmers benefited from such programmes.
- (c) During last year 10.94 lakh farmers benefited from training programmes including .disaster prone areas.
- (e) Similarly KVKs organized a number of sammelan/seminar /worshop, kisan goshti, group discussion, field day, exposure visit and such other extension programmes are organized by the KVKs. During last year 19.45 lakh farmers were benefited from such programmes.
- (f) As far as establishment of exclusive KVKs on fisheries is concerned, it is submitted that Government has approved for establishment of one KVK in each of the rural districts in the country with a multi-disciplinary team of scientific/technical personnel which are identified depending upon the thrust areas of a district and to work on farming system perspectives. There is no provision for establishment of specialized KVK. During XI Plan proposal has been included for strengthening fishery activity in selected KVKs with the provision of demonstration units on Portable Carp Hatchery.
- (n) As far as the recommendation of the committee that KVK should work as mini research cum extension institute is concerned, it is submitted that the activities of the KVK on-farm trials to identify the location specificity of the technology under various farming systems, front-line demonstrations to demonstrate the production potential of improved agricultural technologies on the farmers field, training of farmers to upgrade their knowledge and skill and training of extension personnel to orient them in frontier areas of technology development. A large number of extension programmes are also organized by

the KVKs to create awareness on improved agricultural technology among farmers. Seed and planting material produced in the KVKs are made available to the farmers.

(o) As indicated earlier, there are a number of mechanisms of linkage between KVK and ATMA. The Programme Coordinator of KVK is a member of both ATMA Governing Board and ATMA Management Committee. Similarly, the Project Director, ATMA is also a member of the Scientific Advisory Committee of KVK along with the heads of the Line Development Departments at the district level."

COMMENTS OF THE COMMITTEE

5.9 For comments of the Committee please refer to Paragraph No. 1.58 of Chapter-I of the Report.

NEW DELHI; 16 December, 2008 25 Agrahayana, 1930(Saka) MOHAN SINGH Chairman, Standing Committee on Agriculture.

APPENDIX-I

MINUTES OF THE SIXTH SITTING OF THE STANDING COMMITTEE ON AGRICULTURE HELD ON TUESDAY, THE 16TH DECEMBER, 2008 AT 1000 HRS. IN COMMITTEE ROOM NO. '139', FIRST FLOOR, PARLIAMENT HOUSE ANNEXE, NEW DELHI

The Committee sat from 1000 HRS TO 1100 HRS

PRESENT

Shri Mohan Singh - Chairman

MEMBERS

LOK SABHA

2.	Shri Girdhari Lal Bhargava
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- 3. Shri Khagen Das
- 4. Shri Deepender Singh Hooda
- 5. Smt. Kalpana Ramesh Narhire
- 6. Shri Prabodh Panda
- 7. Smt. Rupatai D.Patil Nilangekar
- 8. Shri K.J.S.P. Reddy

RAJYA SABHA

- 9. Smt. Mohsina Kidwai
- 10. Dr. Janardhan Waghmare
- 11. Shri Sharad Anantrao Joshi
- 12. Prof. M.S. Swaminathan

SECRETARIAT

1.	Shri A. K. Singh	-	Joint Secretary
2.	Smt. Veena Sharma	-	Director
3.	Shri Raj Kumar	-	Deputy Secretary
4.	Shri N. S. Hooda	-	Deputy Secretary
5.	Ms. Amita Walia	-	Under Secretary

At the outset, the members welcomed Shri Mohan Singh, the new Chairman of the Standing Committee on Agriculture appointed in place of Prof. Ram Gopal Yadav who has been elected to the Rajya Sabha. The Hon'ble Chairman then welcomed the Members to the sitting of the Committee and requested them to take up the following draft Action Taken Reports on Demands for Grants (2008-09) of the Ministry of Agriculture and Ministry of Food Processing Industries for consideration and adoption:

(1) 43th Action Taken Report on recommendations contained in the 38th Report on Demands for Grants (2008-09) in respect of Ministry of Agriculture (Deptt. of Agricultural Research and Education)

XXX XXX XXX XXX

- The Committee then considered and adopted the draft Action Taken Reports with minor additions/modifications as suggested by members of the Committee.
- 3. The Committee, thereafter, authorized the Chairman to finalise and present the above-mentioned Reports to the Parliament.

The Committee then adjourned.

APPENDIX II

(Vide Para 4 of Introduction of the Report)

ANALYSIS OF ACTION TAKEN BY GOVERNMENT ON THE THIRTY EIGHTH REPORT OF STANDING COMMITTEE ON AGRICULTURE (14^{TH} LOK SABHA)

(ii) Observations/Recommendations which have been Accepted by the Government	
Serial Nos. 8, 9, 12, 14, 15, 16, 17, 19, and 20	
Total 9	
Percentage 42.86	6%
(iii) Observations/Recommendations which the Committee Do not desire to pursue in view of the Government's replies	
Serial No. 10	
Total 1	
Percentage 4.76%	%
(iv) Observations/Recommendations in respect of which replies of the Government have not been accepted by the Committee	
Serial No. 1, 2, 3, 4, 5, 6, 13 and 18	
Total 8	
Percentage 38.10)%
(v) Observations/Recommendations in respect of which Final replies of the Government are still awaited	
Serial Nos. 7, 11 and 21	
Total 3	
Percentage 14.28	3%
Percentage 14.28	3%