

CHAPTER IX: INDIAN COUNCIL OF AGRICULTURAL RESEARCH

9.1 Non-implementation of Dairy project

Indian Council of Agricultural Research sanctioned a pilot project of Rs.4.90 crore to National Dairy Research Institute for establishment of six dairy centres and providing scientific & technical support to farmers for production of quality milk and agricultural products. However, the objectives of the project could not be achieved due to inadequate monitoring and poor implementation. Consequently an expenditure of Rs.30.20 lakh incurred on establishment of two dairy centers remained unfruitful.

Indian Council of Agricultural Research (ICAR) sanctioned a proposal in September 2002 for 'Integrated Rural Development focused on Dairying' as a pilot scale project to be implemented by National Dairy Research Institute, Karnal (NDRI). The project was approved with an outlay of Rs.4.90 crore for a period of three years. The proposal was conceived with the objectives of establishing model villages by setting up a dairy center on turnkey basis and providing scientific & technical support to farmers for production of quality milk and agricultural products. At the pilot scale stage, the project was to be launched at six centres in Uttar Pradesh i.e. one village in each of the districts: Bhagpat, Muzzafarnagar, Aligarh, Hathras, Ghaziabad and Bijnor. After successful implementation of the pilot project, it was to be handed over to the Department of Animal Husbandry and Dairying, Ministry of Agriculture for launching the scheme at the National Level.

In March 2003, ICAR accorded approval to the construction of model dairy centres in the designated districts through Uttar Pradesh Rajkiya Nirman Nigam Ltd (UPRNN) at an estimated cost of Rs.10.39 lakh per center. Between July 2003 and July 2005, ICAR released Rs.2.37 crore for the project. In September 2003, NDRI initiated the project at Chandoli and Gazipur in lieu of Bijnor and Ghaziabad, although half acre land was transferred to NDRI at Bijnor.

It was observed in audit that

- Out of six centers, NDRI completed construction of only two centres at village Lalukheri in District Muzzafarnagar and village Pusar in District Bhagpat. Out of a total expenditure of Rs.30.20 lakh incurred under the project, the expenditure on construction of these two centres was Rs.24.65 lakh.

- No action was taken to procure the instruments and other facilities planned for these two centres to make them operational, despite release of adequate funds by ICAR.
- For the remaining four centres, even the land for construction of the centres could not be transferred to NDRI.
- NDRI, without seeking extension from Council, decided in November 2005 to close the project stating that the project had completed the term and surrendered the unspent balance of Rs.2.07 crore to ICAR. Specific reasons for closing the project without completing the objectives were not on record.
- As per Rules & Bye Laws of ICAR, all the developmental schemes were required to be reviewed at least two to three times in a year by the Management Committee {Board of Management (BOM) in case of NDRI} It was, however, observed in audit that despite this project being a developmental project, the physical and financial achievements under this project were not discussed and monitored by BOM in the meetings held during June 2004 to December 2006. Besides, NDRI had an Extension Council of which the Deputy Director General (Extension) of ICAR (DDG) was also one of the members. Scrutiny of the minutes of the proceedings of the council held during October 2002 to August 2006 revealed that DDG did not attend the meetings of Extension Council and the project was not regularly reviewed by the Council. Consequently, a project having potential of implementation at national level could not be completed.

ICAR stated in July 2007 that the land for the four centers could not be transferred for reasons beyond its control. It also stated that since the institute could not have utilised the budgetary provisions available under the project beyond the approved timeframe, the project was closed. ICAR further stated in September 2007 that it could not procure the land inspite of rigorous efforts because of lack of co-operation from the district administration and unanticipated hindrances in executing the programme. Hence, NDRI authorities thought of closing down the project rather than keeping the funds unutilised. Regarding review and monitoring, it stated that DDG could not attend meetings probably due to his preoccupation. He had, however, been apprised of the activities of the extension council.

The reply is not tenable as NDRI did not approach ICAR at any point seeking extension of the project. Further, NDRI neither ensured availability of land before taking up the project nor considered relocation of the four centers to other feasible sites. Besides, BOM and Extension Council should have monitored this project regularly.

Thus, inadequate monitoring, poor implementation of the project and inability of NDRI to procure land and equipment resulted in non achievement of the objectives of the project. Consequently, an expenditure of Rs.30.20 lakh incurred on establishment of the two dairy centers remained unfruitful.

9.2 Irregular payment of Island Special Allowance

Failure of Central Agricultural Research Institute, Port Blair to follow the instructions of Ministry of Finance issued in May 2002 to regulate payment of Island Special Allowance resulted in irregular payment of Rs.67.23 lakh from October 2001 to March 2007.

Central Government civilian employees, having 'All India Transfer Liability' (AITL) on their posting to Andaman, Nicobar and Lakshadweep islands were drawing Special (Duty) Allowance (SDA) in terms of the Ministry of Finance (MoF) instructions issued in December 1983. MoF issued clarification in April 1987 that AITL of the members of any service/cadre or incumbents of any post/group of post had to be determined by applying the tests of recruitment zone, promotion zone etc; i.e. whether recruitment to service/cadre/post had been made on All India basis and whether promotion was also done on the basis of an All India common seniority list for the service/cadre/post as a whole. It was also clarified that a mere clause in the appointment letter to the effect that the person concerned was liable to be transferred anywhere in India, did not make him eligible for the grant of SDA.

In May 1989, in order to attract personnel for serving in the island territories, Government decided to grant the Island Special Allowance (ISA) on a graded basis, in lieu of the existing SDA, to the Central Government civilian employees having AITL.

Owing to the agitation of some employees on the issue of payment of SDA, MoF, in pursuance of Supreme Court judgment of 5 October 2001, decided in May 2002 to waive recovery of SDA paid on or before 5 October 2001 from ineligible persons and instructed all ministries and departments of the Government of India to follow the same provisions in respect of employees drawing ISA. Therefore, payment of SDA/ISA to an ineligible person stood recoverable, if paid after 5 October 2001.

It was observed in audit in January 2007 that the scientists working in Central Agricultural Research Institute (CARI), Port Blair, a constituent unit of the Indian Council of Agricultural Research (ICAR) were being allowed the benefit of ISA, even though these scientists did not pass the test of promotion zone as prescribed by MoF. No common seniority list was maintained by ICAR for the scientists for the purpose of giving promotion. Therefore, they were not eligible for grant of SDA/ISA. CARI incurred an expenditure of Rs.67.23 lakh on payment of ISA upto March 2007 which was irregular.

CARI stated in January 2007 that ICAR took up the matter with MoF and as per clarification issued by MoF in January 1985, the scientists were eligible for grant of ISA. The reply of CARI was not acceptable as clarification for test to determine AITL was issued in April 1987 and scientists of CARI clearly did not pass that test of promotion zone. Further, ICAR had confirmed that no common seniority list of scientists was being maintained and there was no concept of inter-se seniority amongst the scientists of ICAR. This corroborated the fact that scientists were not eligible for ISA/SDA after 5 October 2001 onwards.

ICAR stated in August 2007 that the issue of grant of ISA to the scientists of CARI, Port Blair was deliberated upon in the Council in consultation with MoF and clarification/instructions were issued to the Institute in October 2004 stating that the conditions prescribed by MoF were applicable to all Ministries and Departments and any special dispensation in respect of employees of ICAR cannot be agreed to.

Thus, failure of CARI to follow the instruction of MoF issued in May 2002 to regulate payment of ISA/SDA from 6 October 2001 resulted in irregular payment of Rs.67.23 lakh upto March 2007.

9.3 Irregular payment of AMC charges

Indian Council of Agricultural Research irregularly paid Rs.25.04 lakh towards annual maintenance contract of UPS systems procured under a World Bank assisted project, which was required to be paid by respective institutions to whom UPS systems were supplied. The amount was yet to be recovered from the respective institutions/organisations.

Indian Council of Agricultural Research (ICAR) implemented a World Bank assisted Project “National Agricultural Technology Project” (NATP). The Project Implementation Unit (PIU) of NATP placed a Purchase Order in February 1999 for purchase of 1417 Uninterrupted Power Supply (UPS) systems at a total cost of Rs.4.42 crore on M/s Vinitech Electronics Limited (vendor) for various institutes/ Krishi Vigyan Kendras/ State Agricultural Universities/ Agriculture Secretaries and Collectors of different states situated all over the country under the project.

As per terms and conditions of the contract, free maintenance for these UPS systems was to be provided by the vendor during the period of warranty (i.e. 12 months from the date of acceptance of goods). Thereafter a separate Annual Maintenance Contract (AMC) for repair and maintenance of entire system for each year had to be signed with the vendor, for which advance yearly payment of AMC charges was to be made. Further, it was stipulated in the AMC signed by PIU-NATP that the payment of AMC charges had to be

borne by respective institutes/state organisations out of their own budget after the closure of NATP.

Audit observed that although NATP was closed in June 2005, ICAR paid Rs.25.04 lakh in April 2006 as advance payment to the vendor on account of AMC charges for the period April 2006 to March 2007. In addition, this payment was made from a New World Bank Project “National Agricultural Innovation Project” (NAIP). The payment of AMC charges from NAIP funds was irregular as it was required to be made by the respective institutions/organisations from their own budget.

ICAR stated in March 2007 and October 2007 that the new project (NAIP) was a follow up to NATP and had come in quick succession. The provisions of AMC charges were kept in the new project to meet the contingencies of the project NAIP under retroactive funding. The reply was not tenable as the administrative approval and financial sanction for retroactive funding for the period from November 2005 to June 2006 was to establish the Project Secretariat of NAIP, develop project guidelines, plan monitoring and evaluation, financial procurement system etc, and the budget allocation was made for NAIP Secretariat (PIU) only and not for other institutes.

It was also stated by ICAR that AMC was to operate within the framework of the main contract which stipulated centralised payments and all payments in advance for AMC. The contention of ICAR is not tenable as the terms and conditions of the agreement clearly stipulated that the payments of AMC charges after closure of NATP would be borne by respective institutions. This irregular action on part of ICAR led to diversion of funds from NAIP. ICAR may initiate action to recover the amount from institutions concerned and credit it to NAIP for the intended use.

9.4 Activities of Central Sheep & Wool Research Institute

Central Sheep & Wool Research Institute did not take up any collaborative, sponsored and consultancy projects and also did not develop transferable technologies finding acceptance with farmers. It failed to achieve fully the envisaged objectives in six of the seven test checked in-house projects. It also failed to put machinery in use resulting in low output.

9.4.1 Introduction

The Central Sheep & Wool Research Institute (CSWRI) was established in 1962 at Avikanagar, Rajasthan as one of the institutes of Indian Council of Agricultural Research (ICAR). CSWRI has two Regional Stations, Northern Temperate Regional Station (NTRS) at Garsa (Kullu), Himachal Pradesh and Southern Regional Research Centre (SRRC) Mannavanur (Kodaikanal), besides an Arid Region Campus (ARC) at Bikaner, Rajasthan.

The mandate of the Institute is to undertake basic and applied research on all aspects of sheep and rabbit production; to develop update and standardise meat, fibre and pelt technologies; to impart training on sheep and rabbit production; to transfer improved technologies on sheep and rabbit production to farmers, rural artisans and developmental workers and to provide referral and consultancy services on production and product technology of sheep and rabbits. CSWRI is headed by a Director who is assisted by the Heads of the stations. CSWRI has six scientific divisions and eight sections/units at Avikanagar. CSWRI incurred an expenditure of Rs.63.44 crore during the period 2002-07.

Audit examined management of research and development activities including consultancy, patents, commercialisation of technologies and financial management during 2002-07 and the audit findings are brought out in the succeeding paragraphs.

9.4.2 Research activities

CSWRI was required to undertake basic and applied research in all disciplines relating to sheep and rabbit production and product utilisation. Audit scrutiny of research activities revealed the following:

9.4.2.1 Failure to take up externally funded projects

As per Vision 2020 formulated in 1997, CSWRI had proposed that attempts would be made to develop collaborative and externally aided schemes with Department of Science & Technology, Department of Bio-Technology, industries and ad-hoc fund schemes funded by ICAR. Audit observed that CSWRI did not take up any collaborative, sponsored and consultancy projects with outside agencies during 2002-07. Also, the scientists did not gain exposure or get an opportunity to share expertise of other scientific organisations.

CSWRI stated in November 2007 that six externally aided projects were in operation. However, the reply of CSWRI was not correct as the details of six externally aided projects made available by CSWRI revealed that these projects were actually ICAR funded project which were approved by the Expenditure Finance Committee (EFC) of Tenth Plan of CSWRI contrary to the claims of CSWRI.

Thus, even after ten years of adoption of the perspective plan Vision 2020, CSWRI could not take up any externally funded projects and continues to be largely dependent on ICAR for funding of its research activities.

9.4.2.2 In-house projects

CSWRI undertook 38 in-house projects during 2002-07 of which 21 had been carried over from previous years and 17 were added in this period. Out of the 38 in-house projects, though 30 were due for completion by March

2007, it was seen that only 17 projects were completed. Thirteen projects could not be completed within the scheduled time and thus, the anticipated process/products/technology/know-how has been delayed ranging between five to 53 months. Of seven completed projects that were scrutinised in audit, it was seen that the envisaged objectives in six projects were either not achieved or achieved only partially. Also, research activities were not undertaken as per the approved project proposals. Audit observations in this regard are given below:

(a) CSWRI undertook a project titled 'Ex-situ conservation and artificial insemination with frozen ram semen' at an estimated cost of Rs.25.71 lakh. The duration of the project was from April 2002 to July 2007. The main objective of the project was to improve the freezing and storage procedure of ram semen for enhancing the fertilising ability of ram spermatozoa and to develop efficient insemination techniques for deep deposition of semen in cervix and uterus.

In the absence of the completion report, scrutiny of the progress report for 2006-07 revealed that the following activities were not conducted, namely (i) large scale production of frozen semen dose of elite rams in straw for ex-situ conservation and artificial insemination (ii) evaluation of the in-vitro fertilising ability of frozen thawed ram spermatozoa (iii) establishment of semen bank for conservation of semen of elite rams (iv) simplification of non-invasive trans cervical artificial technique. As a result, the main objective of improving the freezing and storage procedure of ram semen for enhancing the fertilising ability of ram spermatozoa was not achieved.

In reply of August 2007, CSWRI accepted the fact of production of limited number of semen doses of elite ram due to non-availability of bulk semen freezer and non-evaluation of in-vitro freezing ability of frozen thawed ram spermatozoa due to non-availability of in-vitro facility. The work of simplification of non invasive trans-cervical artificial insemination technique has been deferred to the Eleventh Plan. CSWRI further stated in November 2007 that establishment of semen bank required heavy investment and could not be operated due to resource constraints.

Thus, CSWRI initiated a project without assessing the availability of required infrastructural facilities and as a result, despite five years of inception of the project in April 2002, the objectives as intended in the project could not be achieved.

(b) Animal Nutrition Division undertook a project titled 'Nutrition and feeding of sheep for improving quality and quantity of wool production'. The duration of the project was from July 2002 to March 2007. Under the project, studies on the effect of nutrition on wool production of sheep, the effect of protein level of diet on quantity and quality of wool production, the effect of dietary amino acid profile on wool production and effect of feeding level of rumen undegradable protein in the diet of sheep on the quantity of wool production were to be conducted.

In the absence of completion report, scrutiny of records revealed that though some studies were conducted, these did not match the project objectives. The Staff Research Council (SRC) in its meetings in June 2004 and 2005 had pointed out the mismatch of technical programme with the listed programme. In June 2006, SRC remarked that no work had been done on the project. Thus, the project could not be implemented despite involvement of four scientists.

CSWRI stated in November 2007 that during this period, all the four scientists involved in the project were gradually transferred to other Institutes of ICAR and hence no proper work could be taken up in this project and studies on wool production aspects would be taken up in 11th Plan.

Thus, the project was not implemented as envisaged due to poor manpower management and failure to act upon the recommendations of the SRC.

(c) CSWRI undertook a project titled 'Utilisation of different types of pastures and silvi-pastures for sheep production'. The project duration was July 2002 to July 2007. The project aimed to develop transferable technologies for nutrition and feeding of sheep on different type of pastures for economical meat and wool production to be made available for adoption by farmers of semi-arid region.

The progress report for 2006-07 revealed that a sub-project was taken up with five objectives. In the absence of the completion report of the project, scrutiny of the project file revealed that no research work was done on four out of the five objectives. Research work had been conducted only on the fifth objective of working out strategic supplementary feeding requirements of sheep maintained on community grazing land and developed pastures during different seasons and physiological stages. As a result, technologies for nutrition and feeding of sheep on different types of pastures for economical meat and wool production could not be developed and transferred to farmers of semi-arid region.

CSWRI stated in November 2007 that study could not be taken up due to non-establishment of pasture as a result of prevailing drought conditions in the region. However, the fact remains that this project was meant to be implemented in semi-arid regions where drought is commonly a prevailing condition and CSWRI failed to develop a technology suitable to the local conditions.

(d) SRRC, Kodaikanal undertook a project titled 'Project on transfer of technology for improvement in sheep, rabbits and wool production' at an estimated cost of Rs.44 lakh. The project duration was April 2002 to March 2006. The project aimed to increase the adoption levels of several rabbit and sheep farming technologies developed by the Institute, by farmers in Tamil Nadu. This was an attempt to increase the farmers' participation in development of technologies in view of the abysmally low adoption levels in the fields.

Audit observed that the duration of the project was changed as April 2004 to March 2007 from April 2002 to March 2006. In the absence of the completion report, scrutiny of progress reports for 2004-05 to 2006-07 revealed that the stated objectives of documentation and dissemination of sheep and farming practices and development of literature on sheep and wool in vernacular were not achieved. Data collection of important parameters of rabbits from birth to marketing and socio economic profiles of sheep farmers were also not done. The Institute had, however, sold 94 Bharat Merino sheep and 1161 rabbits to farmers.

Further, SRC in its meeting in June 2006 pointed out that Transfer of Technology (TOT) activities may not be limited to only sale of animals. Scientists involved in the project should also visit nearby TOT areas to assess performance of the sold animals and their progenies. However, no follow up action was taken by the Institute and due to non-achievement of stated objectives, documentation of indigenous technologies could not be done and improved farming technologies of sheep and rabbit could not be extensively adopted by farmers.

CSWRI noted the audit observations for future guidance.

(e) A project titled 'Identification, evaluation, improvement and utilisation of newer (unconventional) feed resources of Sheep' was undertaken by CSWRI. The project duration was April 2002 to March 2007. The project was undertaken in view of the fluctuating and insufficient animal feed resources in arid and semi-arid zones of the country.

The progress report for the year 2006-07 revealed that the evaluation of newer feeds (P. Juliflora pods and opuntia) as component of complete feed blocks for sheep was not achieved. The chemical composition of fallen leaves as scarcity feed of all locations and that of fresh leaves was not done although recommended by SRC in June 2005. Thus, while certain newer feeds were identified, they were not evaluated or improved for utilisation as component of complete feed blocks for sheep despite the scarcity of animal feed in arid and semi arid regions of the country. The project therefore achieved its objectives only partially.

CSWRI stated in November 2007 that drought conditions partially affected their endeavour. However, the fact remains that this project was meant to be implemented in arid and semi-arid regions where drought is commonly a prevailing condition. Hence, CSWRI failed to evaluate and transfer a technology suitable to the local conditions.

(f) Meat Science and Pelt Technology Division undertook a project titled 'Meat quality evaluation and technology development for utilisation of animal products/by products for further processing of value added items.' The project duration was March 2002 to February 2007. The project was undertaken with the objective of evaluating products and by-products of meat of sheep, goats and rabbits maintained under various nutritional experiments and also under routine sector management.

In the absence of completion report, scrutiny of progress reports for 2006-07 revealed that technical programme details of the project, summarised data of experiments, utility of results obtained and research papers published, if any, were not given in the progress report though it was stated that meat products of sheep slaughtered were evaluated for keeping quality and consumer acceptability. In view of the above, it could not be ascertained whether this project had achieved its envisaged objectives.

CSWRI in its reply of November 2007 stated that the project could not be carried out effectively due to paucity of scientific staff in this discipline. It further stated that this being a thrust area of research in sheep production, this would be given due weightage once the staff position improves.

9.4.2.3 Development, transfer, patenting and commercialisation of technologies

The transfer of improved technologies on sheep and rabbit production to farmers, rural artisans and developmental workers and to provide referral and consultancy services on production and product technology of sheep and rabbits are the primary objectives of CSWRI. Audit observed that CSWRI failed to achieve these objectives despite employing a contingent of around 60 scientists. In this regard it was observed that:

- Only the Animal Health and Animal Nutrition divisions out of the total six divisions of CSWRI developed five technologies during 2002-2007. Research Advisory Council (RAC)¹ recommended in December 2003 that the Wool Technology Division (WTD) should be a model hub for earning revenues by the Institute for development of technologies and their transfer to industries. However, though WTD was established about 44 years ago in CSWRI, it failed to develop any technology which could be transferred to the industry. CSWRI accepted the fact in November 2007 and stated that since the infrastructure of WTD was not updated from time to time, it could not act as a model hub for earning revenues for development of technologies and their transfer to industry and provisions have been made in Tenth Plan proposal for extensive renovation of the plant to operate it in a continuous flow system for optimum utilisation and income generation.
- CSWRI did not take any action to commercialise the technologies developed or to render consultancy services. CSWRI stated that all the five technologies developed during 2002-2007 were transferred to farmers of Rajasthan, Animal Husbandry Department of Rajasthan etc. CSWRI, however, did not conduct any impact assessment study regarding actual benefit derived by the end users by adapting the know-how of the technologies of CSWRI.

¹ RAC is a body constituted by ICAR to oversee the research activities of the Institute annually.

- CSWRI had sent two proposals to ICAR for filing the patents during 2002-2007 but no patent had been awarded till date.

While accepting the facts, CSWRI replied in November 2007 that target sheep farmers are resource poor and require support/inputs for adoption of the programme. However, it is planned to involve financial institutions in the venture to commercialise the technologies. CSWRI accepted the fact regarding patents.

9.4.2.4 Research Papers

Publication of research papers in journals is one of the key indicators identified by ICAR to evaluate the performance of Institutes. It was noticed that out of 60 scientists of various divisions/centres of CSWRI, 25 scientists of six divisions (in three divisions/centres) did not contribute any research paper during 2002-07 and 157 research papers were published during 2002-07. Thus, the average contribution of scientific publications by each scientist per annum was only 0.53.

Further, the impact factor² of these research papers ranged from 1 to 2.5 for the Indian journals and from 1 to 3.5 for foreign journals. Thus, the ratings³ of the papers were either medium or low.

CSWRI accepted the fact and in reply (November 2007) stated that scientists have been instructed for timely submission of research papers.

9.4.2.5 Non/under-utilisation of scientific manpower

The total number of scientists at CSWRI was 60 in March 2007 against a sanctioned strength of 91. In SRC meeting in April 2002, it was recommended that each scientist should lead one major project and may be associated in two projects maximum. Despite this, it was seen that 28 scientists did not lead as Principal Investigator (PI) in any project during this period. Audit also observed that six scientists were not involved in any project during 2002-07 in any capacity, either as PI or co-Principal Investigator. This indicated that scientific personnel available with CSWRI were not optimally utilised in research activities.

CSWRI in its reply of November 2007 stated that the total number of project and discipline have been fixed as per ICAR norms. Hence, all scientists cannot be PI of the project. The reply is not tenable as SRC had recommended norm of one major project per scientist as PI to ensure optimal

² Impact factor (IF) is a measure of the frequency with which the "average article" in a journal has been cited in a particular year or period.

³ As per National Academy of Agricultural Science (ICAR), a research paper is given a high rating if IF is 3.5, Medium for IF at 2.5-3, Medium to low for range 1-2, Low < 0.5 for Indian Journals. Rating is high for papers with IF-4 in foreign journals.

utilisation of the scientific manpower and effective conduct of R&D activities.

9.4.2.6 Monitoring/evaluation of projects/divisions

The Expenditure Finance Committee in its sanction of Tenth Plan scheme for CSWRI stated that the research programmes of the Institute should be under constant monitoring so as to ensure that the targets envisaged are fully achieved considering the expenditure incurred. In this regard, SRC is empowered to approve and review the research projects and technical activities of the Institute and make recommendations to the scientists carrying out the research work. SRC was also required to meet twice in a calendar year. However, it met only five times against the mandated 10 times during 2002-07. Further, the proceedings of SRC meetings revealed that it did not monitor the follow-up action on its recommendations and CSWRI also did not prepare any action taken report on SRC recommendations. This indicated inadequate monitoring of the research activities and follow-up.

CSWRI, in its reply of November 2007, stated that the frequency of meetings of SRC once in a year was considered adequate for monitoring purpose. Moreover the budget constraints remained a major problem during Tenth Plan. The reply was not acceptable as frequency of SRC twice a year was mandated by ICAR.

9.4.2.7 Inadequate documentation of research projects

Research Project Files (RPFs) for all the projects were required to be maintained in three parts viz project proposals (RPF I), annual progress (RPF II) and final reports (RPF III) for approval and periodical monitoring of research projects by SRC and evaluation of final reports by RAC. However, out of 38 projects, project proposals in the RPF I were not prepared for nine projects. Similarly, the RPF II of 12 projects were maintained intermittently and not for all the years during 2002-07. Of the 17 completed projects, final reports (RPF III) were not available for any project. Further, although all the RPFs were required to be sent to ICAR for overall monitoring, none of the RPFs were sent to ICAR during 2002-07.

Thus, lack of proper documentation of the research projects also contributed to deficiencies in the system of review and evaluation of projects. As a result, it was not clear how ICAR satisfied itself that the individual projects were 'on course' before release of fresh grants for new projects.

CSWRI in its reply of November 2007 accepted the audit observation.

9.4.3 Equipment and Machinery

9.4.3.1 Non utilisation of machinery

The aim of research activities of WTD was development of technologies for adoption by the industry, value addition to local wool for small entrepreneurs and rural artisans and restriction of wool import. WTD procured DREF-2 friction spinning machine⁴ in 1995 costing Rs.35 lakh.

The DREF-2 was to be optimally utilised in the projects of the division involving Indian wool, their blends to produce yarn of carpet, blanket, upholstery and tweed etc. However, the log book of the equipment revealed that during 2003-06, the utilisation of the machine ranged from one hour to three hours per day. The machine was in operation for 164 days only during the years 2003-06 and processed only 1.6 tons of wool at the rate of 0.54 tonnes per annum against an installed capacity of 180000 tonnes per annum. Thus, DREF2 machine was grossly underutilised and the division did not take up large-scale processing and product development from wool fibre.

CSWRI in its reply stated that extensive use of machine was not possible in R&D institutes. However, the fact remains that WTD did not develop any technology as a result of R&D and therefore the machine was neither optimally used for R&D purposes nor for any commercial linkages.

9.4.3.2 Non-modernisation of the plant

ICAR in February 2000, approved Rs.10 crore for the CSWRI as one-time catch-up grant for replacement of old equipment, renovation of old building/utilities etc. The catch up grant was to be utilised during the Ninth Plan period. Out of total Rs.10 crore, an amount of Rs.1.83 crore was for replacement of old equipment of the plant of WTD and for renovation of plant building. It was, however, observed that CSWRI did not submit any proposal to ICAR for release of catch up grant of Rs.10 crore during the plan period. Further, WTD also did not submit the proposal to the Institute for replacement of plant and machinery and renovation of plant building. A budget provision of Rs.43.05 lakh i.e. 18 *per cent* of budget allocation of equipment/machinery of the Institute was sanctioned for the procurement of 14 equipment of the WTD for the Tenth Plan period. WTD could procure only equipment costing Rs.2.05 lakh upto the end of the Tenth plan period. Thus, WTD did not take any initiative for modernisation of the plant, which could have led to greater productivity and revenue.

While accepting the fact, CSWRI, in its reply, stated that the matter regarding renovation/modernisation of the plant is being vigorously pursued with ICAR.

⁴ The DREF-2 is a high output capacity machine having three spindles, speed of 250 metres per minute, output capacity of 20 hours per day and manufacturing capacity of 1, 80,000 tons of yarn annually.

9.4.3.3 Delays in procurement of equipment

The Expenditure Finance Committee approved Rs.14.85 crore for Tenth Plan outlay for CSWRI in December, 2003 which included Rs.2.50 crore for the procurement of 110 equipment for various divisions and centres of CSWRI, out of which, 90 equipment costing Rs.2.35 crore were to be procured for its headquarters. It was observed in audit that CSWRI did not procure 33 equipment costing Rs.91.16 lakh upto the end of the Tenth Plan period. Of the 33 equipment not procured, CSWRI did not take any action for the procurement of 17 equipment and four equipment were under consideration for procurement. Though tenders were invited for 12 equipment, these could not be procured due to non adherence to specifications of the indenter. This highlighted inefficiency in the procurement system of CSWRI which could not ensure timely procurement of more than 33 *per cent* of the equipment, even after four years of the approval by EFC.

CSWRI in its reply stated that 12 equipment were substituted by an equipment namely Optical Fibre Diameter Analyser (OFDA). The reply of CSWRI is to be viewed in the light of the fact that CSWRI even failed to procure the OFDA equipment. Delays in procurement of the critical equipment are bound to affect the R&D activities of CSWRI.

9.4.4 Decreasing sheep flock and high mortality

In April 2003, CSWRI had a flock of 532 mixed experimental sheep which reduced to 201 in April 2006. Mannavanur Center had a flock of 307 Bharat Marino sheep in April 2003 and it came down to 108 in March 2007. Similarly, as on 2002 at Avikanagar, CSWRI had a flock of 174 Garola breed which came down to 79 as of 2007. RAC, in its meeting in June 2003, also pointed out that while the Institute was maintaining more than 10,000 sheep in the main campus in early seventies, the average present strength is approximately 3,600 only, despite land resources remaining the same. Thus, CSWRI needs to take immediate remedial action for increasing the flock of sheep by reducing mortality rate as it averaged 20.52 *per cent* in various breeds during 2002-07. The decreasing size of sheep flock also indicated diminishing R&D activities.

CSWRI, in its reply of November 2007, stated that mortality in sheep flock was within limits. The reply of CSWRI is to be viewed in the light of the fact that the survivability rates were to be maintained at 90 to 95 *per cent* as per Vision 2020 of the CSWRI.

9.4.5 Conclusion

CSWRI did not undertake any collaborative/sponsored or consultancy project during the Tenth Plan period although envisaged in Vision 2020. Audit check of the seven out of 17 completed in-house projects as on March 2007 revealed partial/non-achievement of objectives in six of the completed projects. While

only five technologies were developed, none was successfully transferred or patented. The scientific manpower was not optimally utilised. Further, the documentation, monitoring/evaluation and impact assessment of research projects were inadequate. CSWRI did not make adequate efforts to modernise its Wool Technology Division despite grants sanctioned by ICAR. The experimental sheep population was decreasing due to the high mortality rate of sheep during this period.

Thus, CSWRI which is the only national level institute for the improvement of sheep, goat and rabbit and for their product utilisation did not fully achieve its objectives of development and transfer of process, products, technologies and know-how to farmers, artisans, developmental workers and industry.

9.5 Non-operationalisation of Quarantine Building

Project Directorate of Biological Control entrusted the work relating to construction of a quarantine building to Central Public Works Department. However, lack of proper planning and inability to rectify deficiencies resulted in non-operationalisation of the building even after a lapse of more than eight years and after incurring Rs.1.65 crore.

The Project Directorate of Biological Control (PDBC), Bangalore, a constituent unit of Indian Council of Agricultural Research (ICAR) decided in March 1999 to construct quarantine laboratory to quarantine and screen 'introduced natural enemies' and to maintain them for at least three generations. ICAR had entered into a Memorandum of Understanding for co-operation in biological control of pests, pathogens and weeds in July 1998 with Commonwealth Agricultural Bureau International (CABI), who had expertise in building quarantine facilities. Central Public Works Department (CPWD) submitted an estimate of Rs.40.07 lakh for the quarantine laboratory building in December 2000 and PDBC paid Rs.26.70 lakh in two installments to CPWD during August 2001 and March 2002.

It was observed in audit that even after five years of the scheduled date of completion, the quarantine building has still not been operationalised. Audit scrutiny revealed the following lapses and failures:

9.5.1 Failure of PDBC to obtain expert advice to firm up specifications

PDBC finalised the specifications for the quarantine laboratory without consulting CABI and approached CPWD in March 1999 for taking up construction work. The building was scheduled to be completed in October 2002. However, it was only in May 2002 that PDBC obtained advice from CABI on the quarantine building and realised the need for the quarantine facility to meet international standards. Thereafter, PDBC approached CPWD in June 2002 and asked them to incorporate airtight doors, double glazed windows and air handling systems to create negative pressure in the existing

work contract. CPWD, however, expressed its inability to include revised specifications in the work awarded to the contractor and foreclosed the contract in July 2002 after 45 *per cent* of the work was completed. At the time of foreclosure, CPWD had incurred an expenditure of Rs.6.83 lakh.

9.5.2 Inability of CPWD to construct the quarantine building of international standards

PDBC approached CPWD again in March 2003, seeking preliminary estimate with reference to revised specifications and CPWD submitted a revised preliminary estimate of Rs.1.03 crore in February 2004. CPWD, however, could not fully comprehend the specifications and therefore omitted to include requirements like laminar air flow and negative pressure chamber in the estimate. PDBC also failed to notice non-inclusion of the entire requirement in the estimate. In August 2004, sanction to the revised estimate was communicated to CPWD with February 2005 as the target date for completion of the work. However, the work could not be completed in time by CPWD.

While examining the preliminary estimates submitted by CPWD, PDBC pointed out deficiencies with regard to air handling and AC system and further took the issue of non-completion of the laboratory with CPWD in June 2005 and January 2006. CPWD again furnished a revised estimate amounting to Rs.1.65 crore in June 2006 after including requirements which were omitted earlier. Revised sanction was received from ICAR only in March 2007. While an amount of Rs.96.23 lakh was released in installments from August 2001 to March 2005, an amount of Rs.68.77 lakh was paid to CPWD in March 2007. CPWD could not complete and hand over the laboratory till the end of October 2007 as the work relating to provision of airtight doors, double glazed air tight windows, air handling system, liquid waste disposal system, water shower system and windows/doors in non-quarantine areas, etc, was yet to be done by CPWD.

9.5.3 Failure to achieve research objectives

Due to failure of PDBC to ensure timely construction of the quarantine building, the objective to quarantine and screen 'introduced natural enemies' could not be achieved. Besides, an incinerator and an autoclave worth Rs.5.03 lakh purchased and installed in April 2006 were not utilised. Rs.9.97 lakh released as first installment for carrying out the project was returned to sponsors by PDBC, thus, compromising its research activities.

ICAR replied in August 2007 that when PDBC approached CPWD with all the specifications, CPWD submitted a revised estimate and did not indicate their incapability of undertaking the work. Though PDBC, as a client, furnished the requirement of negative pressure, it was up to CPWD to understand and provide the right kind of air handling system. It further stated that PDBC had no mechanism of assessing the expertise of CPWD. When CPWD could not

identify vendors by 2006, PDBC had suggested to CPWD in January 2006 the vendors, who could take up the electrical works.

The reply is not acceptable since PDBC itself obtained expert advice from CABI only as late as in May 2002 even though the decision to construct the quarantine building was taken as early as in March 1999. Though the facility was of international standards and involved special nature of work, ICAR approved the estimates without ensuring whether all requirements were included by CPWD to suit the quarantine building. This indicated lack of effective supervision as the estimates were vetted in a routine manner.

Thus, lack of proper planning and inability to rectify deficiencies in quarantine building resulted in non-operationalisation of quarantine building even after a lapse of eight years of its conception.

**New Delhi
Dated:**

**(RAJ G. VISWANATHAN)
Principal Director of Audit,
Scientific Departments**

Countersigned

**New Delhi
Dated:**

**(VINOD RAI)
Comptroller and Auditor General of India**