OVERVIEW

This Report contains the results of one Performance Audit each pertaining to the Department of Scientific and Industrial Research, Department of Space and Indian Council of Agricultural Research.

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH

Performance Audit of National Aerospace Laboratories

National Aerospace Laboratories, Bangalore (NAL), a constituent unit of Council of Scientific and Industrial Research (CSIR), was set up in 1959 to provide scientific support to the aeronautical industry. NAL undertook various mission mode programmes, in-house, grants-in-aid, sponsored and other projects in order to achieve its mandate of 'development of aerospace technologies for general industrial applications'.

Audit observed that during 2002-07, NAL could generate only 26 *per cent* of funds through external cash flow against a target of 50 *per cent* set for achievement by 2001 and continued to be largely dependent on CSIR funds. Further, success rate of NAL in transferring and commercialising technologies developed was abysmally low. Of the 146 projects test checked, NAL developed knowledgebase in 75 projects of which only 25 knowledgebases were transferred to the end users. Of these 25 knowledgebases transferred, NAL could commercialise only one knowledgebase for general industrial application. As a result, NAL's earnings from transfer and commercialisation of technologies were only Rs.0.37 crore during 2002-07, which was 98 *per cent* short of the target of Rs.15 crore set by the Performance Appraisal Board. NAL also could not achieve its targets for filing of patents and impact factor of published research papers.

Fifty *per cent* of the selected projects were completed with time overrun ranging from six months to more than three years. Many projects taken up by NAL also failed to fully achieve their objectives. Documentation in a large number of projects was deficient as project proposals, project expenditure, completion reports etc., were not maintained adequately to ensure transparency and facilitate subsequent review. In respect of sponsored projects, NAL suffered a loss of Rs.5.17 crore due to undercharging on account of intellectual fee and service tax, in violation of the norms fixed by CSIR.

The two-seater trainer aircraft HANSA, though developed, was still being manufactured with imported components as NAL was yet to develop these sub-systems indigenously. NAL also could not find a private partner for sharing the risk of development and commercial production for HANSA and had to take up its manufacturing without assessing the future commercial viability of the aircraft. After the initial order of 10 aircrafts, there is no further demand for it in the market. Similarly, the project on the 9-14 seater SARAS had suffered time and cost overrun. NAL is awaiting certification of airworthiness for SARAS from Director General of Civil Aviation (DGCA) as NAL failed to bring down its weight within the permissible limit. As per DGCA, NAL may have to build a third prototype, before it is granted certificate for airworthiness, which would further add to time and cost overruns.

In the meantime, NAL is proposing a new project for design and development of a 70 seater regional transport aircraft which needs to be reviewed in light of the limited success and difficulties faced in HANSA and SARAS projects.

DEPARTMENT OF SPACE

Performance Audit on Procurement of Stores and Inventory Control in Department of Space

The Department of Space (DOS) and its constituent units are responsible for planning and execution of national space activities which include development of satellites, launch vehicles, sounding rockets and associated ground systems. DOS spends around 56 *per cent* of its overall budget on procurement of stores and equipment for implementation of these programmes. The procurement budget of DOS was Rs.8636.18 crore during 2001-02 to 2006-07.

Audit observed that unutilised procurement budget of DOS increased consistently from Rs.83.28 crore in 2002-03 to Rs.438.28 crore in 2006-07. The extent of savings was up to 38 *per cent* in some years in some Centres selected in audit, which indicated serious deficiencies in procurement planning and management. Inaccurate assessment of procurement requirements and cost estimations by indentors led to large number of indents not resulting in purchase orders and also wide variations between indent value and order value. Non-consolidation of similar purchases resulted in uneconomical purchases and extra expenditure of Rs.93.95 lakh.

Procurement practices adopted by DOS did not ensure adequate transparency and competition as 67 *per cent* of procurements amounting to Rs.996 crore were made on proprietary/single tender basis, without making efforts to give fair opportunity to alternate suppliers/dealers of the generic products available in the market.

Audit observed lack of fairness and objectivity in the process of selection of vendors and award of contracts as DOS negotiated with other than lowest bidders, in violation of CVC guidelines which led to irregular placement of purchase orders amounting to Rs.44.58 crore and extra expenditure of Rs.3.42 crore. Audit also observed that DOS had extended undue favour by awarding contracts worth Rs.14.26 crore to suppliers by accepting technically non-suitable bid and changing the techno commercial terms of bids, subsequent to bid evaluation. DOS incurred an additional expenditure of Rs.2.70 crore due to delay and inefficiency in processing and finalising tenders.

Post contract management in DOS was weak as non/delayed installation of equipment for periods ranging from 5 to 60 months was observed. Delayed inspection of stores also resulted in non-replacement of rejected items worth Rs.8.73 crore. DOS failed to monitor adjustment of advances given to suppliers worth Rs.437.73 crore in 1177 cases which were outstanding for periods up to more than 15 years. Further, 147 Bank Guarantees worth Rs.83.65 crore furnished by suppliers were not renewed.

DOS did not revise its procurement policy for electronic, electrical, electro-mechanical components since the last decade. There was overstocking in 9055 categories of such components worth Rs.75.02 crore, resulting in infructuous expenditure due to obsolescence. Physical verification of stores was not regularly conducted and there was slow clearance/non-clearance of surplus, obsolete and unserviceable stores.

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Performance Audit of Agricultural Extension Activities in Indian Council of Agricultural Research

Indian Council of Agricultural Research (ICAR) has the responsibility of conducting extension activities like demonstrating, testing and transferring agricultural technologies from research institutes to farmers' fields, thereby bridging the gap between production and productivity. It undertakes these activities through schemes of Krishi Vigyan Kendras (KVKs), National Research Centre for Women in Agriculture (NRCWA), Agricultural Technology Information Centres and other schemes funded by Ministries/ Departments. The total expenditure of ICAR for its extension activities during the X Five Year Plan was Rs.834.77 crore.

Performance Audit of the extension activities of ICAR during the X plan period revealed that there was significant shortfall in conducting technical activities like training, frontline demonstrations and on-farm testing for farmers by KVKs. Fifty two *per cent* of KVKs were still demonstrating old crop varieties released between 1948 and 1997 instead of new crop varieties in frontline demonstrations on oilseeds and pulses. The eligibility criteria for possession of required land was not adhered to in 50 out of 180 KVKs (28 *per cent*) test checked. Non-utilisation of infrastructure facilities like farmers' hostel and staff quarters established in 46 KVKs and non-establishment of infrastructure facilities in 44 KVKs were also observed. Coordination and monitoring of KVK activities were inadequate at the ICAR, Zonal and KVK levels.

NRCWA did not undertake 70 *per cent* of the activities envisaged in the X plan. It did not create a database on gender specific information, identify hazards in agricultural operations and develop need based technologies for women. There was partial/non-achievement of objectives, inadequate impact assessment and follow up action in 17 out of 26 projects, despite an expenditure of Rs.8.08 crore.

Results of the six projects of Agriculture Produce Cess Fund did not reach the end users, despite an expenditure of Rs.79.82 lakh. Institution Village Linkage Programmes did not effectively address the identified problems of the farming communities, despite an expenditure of Rs.1.92 crore.

Therefore, extension activities of ICAR need strengthening to ensure better transfer and adoption level of agricultural technologies and enhancement of productivity.