11

STANDING COMMITTEE ON INFORMATION TECHNOLOGY (2004-2005)

FOURTEENTH LOK SABHA

MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGY

(DEPARTMENT OF INFORMATION TECHNOLOGY)

[Action taken by the Government on the Recommendations/Observations of the Committee contained in their First Report (Fourteenth Lok Sabha) on Demands for Grants (2004-05)]

ELEVENTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

March, 2005/*Phalguna,* 1926 *(Saka)*

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Presented to Lok Sabha on .....

Laid in Rajya Sabha on .....

सत्यमेव जयते

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C.I.T. No. 133

Price : Rs. 20.00

Published under Rule 382 of the Rules of Procedure and Conduct of Business in Lok Sabha (Eleventh Edition) and Printed by Jainco Art India, New Delhi-110 005.

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*Nominated *w.e.f.* 20.8.2004.

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1. Shri P.D.T. Achary	—	*Secretary*
2. Shri Raj Shekhar Sharma	—	*Deputy Secretary*
3. Shri K.L. Arora	—	*Under Secretary*

INTRODUCTION

I, the Chairman of the Standing Committee on Information Technology (2004-05) having been authorised by the Committee to submit the Report on their behalf, present this Eleventh Report on Action Taken by Government on the Recommendations/Observations of the Committee contained in their First Report (Fourteenth Lok Sabha) on "Demands for Grants (2004-2005)" relating to the Department of Information Technology.

2. The First Report was presented to Lok Sabha on 23.08.2004 and laid in Rajya Sabha on 24.8.2004. The Department furnished Action Taken Notes on the Recommendations contained in the Report on 06.12.2004.

3. The Report was considered and adopted by the Committee at their sitting held on 20.01.2005.

4. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

5. An analysis of Action Taken by Government on the recommendations/observations contained in the First Report (Fourteenth Lok Sabha) of the Committee is given at Annexure-II.

NEW DELHI;
1 *March*, 2005
10 *Phalguna*, 1926 *(Saka)*

M.M. PALLAM RAJU,
Chairman,
Standing Committee on
Information Technology.

CHAPTER I

REPORT

This Report of the Standing Committee on Information Technology deals with action taken by the Government on the recommendations/observations contained in their First Report (Fourteenth Lok Sabha) on Demands for Grants (2004-05) relating to Ministry of Communications and Information Technology (Department of Information Technology).

2. The First Report was presented to Lok Sabha on 23.8.2004 and was laid on the Table of Rajya Sabha on 24.8.2004. It contained 16 recommendations.

3. Action Taken Notes in respect of all the Observations/Recommendations contained in the Report have been received and categorised as under:

(i) Recommendations/Observations which have been accepted by the Government:

Paragraph Nos: 1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 14, 15 and 16

Total: 13

Chapter-II

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

Paragraph Nos: 4 and 8

Total: 2

Chapter-III

(iii) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee and which require reiteration:

Paragraph No: Nil

Total: Nil

Chapter-IV

(iv) Recommendations/Observations in respect of which replies are of interim nature:

Paragraph No. 7

Total: one

Chapter-V

4. The Committee trust that utmost importance would be given to the implementation of the recommendations accepted by the Government. In cases, where it is not possible for any reason for the Department to implement the recommendations in letter and spirit, the matter should be reported to the Committee with reasons for non-implementation. The Committee further desire that Action Taken Notes on the Recommendations/Observations contained in Chapter-I and final replies to the recommendations contained in Chapter-V of this Report should be furnished at an early date.

5. The Committee will now deal with the action taken by the Government on some of the Recommendations.

Department of Electronics Accredited Computer Courses (DOEACC) Society

(Recommendation No. 15)

6. The Committee note in their earlier Report that there had been a decline in registration to various DOEACC courses. During 2002-03 and 2003-04, against 92,612 and 75,000 students targeted to be registered, only 75,884 and 49,391 students respectively were actually registered. As one of the reason for decline in registration had been absence of academic recognition of DOEACC Course, the Department had proposed to secure academic recognition of DOEACC 'B' level Course so as to increase the acceptability of these courses amongst students and industry. The Committee had desired the Department to follow up the matter for registration of DOEACC 'B' level courses lying with IGNOU at the highest level. They further desired to know whether there had been any proposal from IGNOU to give recognition to DOEACC to 'O', 'A' and 'C' level course also.

7. The Department of Information Technology in their Action Taken Notes have stated as follows:

> "(a) Academic Recognition of DOEACC 'B' Level Course: The matter regarding the academic recognition of DOEACC 'B' Level Course has been progressed with All India Council for Technical Education (AICTE). The same was discussed in AICTE meeting held on October 29, 2003 wherein a Committee was constituted to evolve a policy framework on the issue of education in the non-formal sector *vis-a-vis* formal sector. During the meeting of the

said Committee, it was decided that Academic Recognition of DOEACC 'B' Level will be considered by Distance Education Council (DEC), Indira Gandhi National Open University (IGNOU), for which a Sub-Committee consisting of Pro-Vice Chancellor of IGNOU, ED, DOEACC & Advisor (QA), AICTE was constituted. A meeting of this Sub-Committee was held on January 27, 2004 in AICTE based upon the recommendation of which, DOEACC Society has submitted a formal application for Academic Recognition of DOEACC 'B' Level. This is being constantly followed up with Prof. S.C. Garg, Pro-Vice Chancellor, IGNOU.

(b) Academic Recognition of the remaining courses *i.e.* 'O' 'A' & 'C' Levels. It is mentioned that at present there is no equivalent of 'O' Level Course offered in the formal sector of IT Education. As such, there is no action proposed to be taken by the Society. However, the DOEACC 'A' Level Course has already been recognized by IGNOU for lateral entry to their MCA Programme. As regards, the academic recognition of DOEACC 'C' Level is concerned, the matter will be taken up with IGNOU only after professional recognition is accorded by MHRD to DOEACC 'C' Level Course for which the request of the Society has been referred to AICTE. Accordingly, in the meeting with AICTE on October 29, 2003, professional recognition of 'C' Level was discussed in addition to academic recognition of 'B' Level. The matter is being pursued with AICTE constantly."

8. The Committee observe that the matter regarding academic recognition of DOEACC 'B' and 'C' level courses was discussed in meeting with All India Council for Technical Education (AICTE) held on 29 October, 2003 wherein a decision was taken that academic recognition of DOEACC 'B' level courses would be considered by Distance Education Council (DEC), Indira Gandhi National Open University (IGNOU). However no decision has yet been taken with regard to DOEACC 'C' level courses more so when the matter will be considered by IGNOU only after professional recognition is accorded by Ministry of Human Resource Development. The Committee feel that considerable time has already elapsed and the matter needs to be expedited. They, therefore, hope that once these courses get the academic recognition their acceptability amongst the students and industry would increase and more students would get registered. This will also enable the industry as well as the students

to derive maximum benefit out of these courses. The Committee desire that a clear decision on the matter may be taken before the discussion on Demands for Grants (2005-06) takes place.

National Informatics Centre (NIC)

(Recommendation No. 16)

9. The Committee had observed in their earlier Report that NIC primarily an implementing agency had 3000 people workforce spread across the country. The manpower remained constant for the last 5 to 6 years whereas the workload had increased fifty to sixty times. Further NIC had always remained short of talent as the attrition rate was fairly high as talented hands had been leaving the organization for greener pastures. The Committee strongly opined that NIC should not be overburdened with so much of work as it would never be able to do justice to the assignments entrusted to it resulting in delayed projects. The Committee pleaded that serious thought should be given to the functioning of NIC, its manpower requirement, preserving talent, making congenial environment in NIC by use of modern management techniques and attracting fresh talents as adopted by multinational companies.

10. The Department of Information Technology in their Action Taken Notes have stated as follows:

The Committee has recommended that serious thought should be given to the functioning, manpower requirement, preserving talent, congenial environment in NIC by utilizing modern management techniques and attracting fresh talents as adopted by multinational companies.

As far as manpower is concerned, there is a backlog of 183 posts for the last five years for which DIT has already been processing approval for carrying out recruitment by NIC.

As pointed out by the Parliamentary Standing Committee, the workload of NIC has been increasing to a great extent. This is due to new responsibilities/tasks being given to NIC. Also advancement in technology necessitates induction of fresh professionals to handle new technologies. NIC which was initially in 1985-86, an application developer, has become a major infrastructure and turnkey solution provider to the Government. Both NICNET and Data Centres have

gown considerably requiring major support. The security requirements of this infrastructure and applications have also grown exponentially thus requiring minimal extra professional resources. NIC would need additional 200 posts at the level of System Analyst (Pay Scale Rs. 8000-275-13500) in the area of PK 1, Security, Network, Java/open source, web Development and GIS. The annual financial implementation at the current salary levels is of the order of Rs. 4.45 crore.

11. The Committee are informed that NIC has a backlog of 183 posts for the last five years for which the Department of Information Technology has already been processing approval for carrying out recruitment by NIC. Also there is a need of additional 200 posts at the level of System Analyst in the scale Rs. 8000-275-13500 in area of PK 1, Security, Network, Java/open source, web Development and GIS. However, keeping in view the volume of work assigned to NIC, the Committee desire that the matter of filling up of backlog vacancies should be given top priority. In regard to the additional requirement of posts, the Committee feel that NIC should take urgent steps to tackle the situation in a prudent and suitable manner.

CHAPTER II

RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

Tenth Plan Allocation

(Recommendation Para No. 1)

The Committee observe that keeping in view the actual expenditure during the first two years of the Tenth Plan i.e. 2002-03 and 2003-04 of Rs. 465.35 crore and Rs. 494.63 crore respectively (i.e. Rs. 959.98 crore in total) and Rs. 750 crore allocated for 2004-05 if fully spent during the year, the Department would be incurring a total expenditure of Rs. 1709.98 crore in the first three years of the Tenth Plan. Hence, the Department would be left with only Rs. 1004.02 crore, for the remaining two years 2005-06 and 2006-07, out of a total Tenth Plan allocation of Rs. 2714 crore.

The Committee further note that the Department has projected a demand of Rs. 2500 crore for the last two years of the Tenth Plan and propose to take up the matter of additional funding with the Planning Commission in the Mid-term Appraisal of the Tenth Plan.

The Committee are concerned over the huge gap between the demand and the availability of money on the one side and the fate of the on-going projects on the other. It is a well known fact that in the planning process it is not possible to accommodate all the demands which come from different sectors. According to the Committee, it may not be an easy task for the Department to get an additional Rs. 1500 crore in two years.

The Committee, therefore, desire that the Department of Information Technology should approach the Planning Commission with a factual data of utilization and projected demand to impress upon them the need for the additional funds. They may keep the Committee apprised of the developments on a regular basis.

Action Taken by the Government

A budgetary support of Rs. 2,714 crore has been approved for the Department of Information Technology for the Tenth Plan. Against

this, DIT is likely to incur an expenditure of about Rs. 1,710 crore on its plan schemes in the first three years of the Plan. Thus, a balance of only Rs. 1,004 crore would be left for the last two years of the plan. This will have a tremendous adverse impact on the programmes of this Department especially since existing provisions are very limited.

The Common Minimum Programme (CMP) of the United Progressive Alliance (UPA) has affirmed the commitment of the Alliance to promote E-Governance on a massive scale. This also figures prominently in the address of the President to the Parliament on 7.6.2004. To give effect to this commitment, a thrust in the DIT budgetary support would be required for the implementation of the National E-Governance Action Plan. It is also proposed to establish a National E-Governance Fund with a seed capital of Rs. 1,000 crore.

The Department of Information Technology programmes in Information Technology, which are also the Core programmes of the Department, have a close linkage with the larger objectives of the CMP in regard to development of human resources, employment generation and improvement of the quality of life of disadvantaged areas.

Under the circumstances, the DIT Tenth Plan allocations need to be substantially augmented. The DIT will require a minimum Budgetary support in the range of Rs. 2,500 crore for the last 2 years of the Tenth Plan i.e. for the years 2005-06 and 2006-07 to run these programmes. The Department of Information Technology has already included this issue in the Mid-Term Appraisal of the Tenth Plan document submitted to the Planning Commission. The Department would apprise the Standing Committee of the developments after Mid-Term Review of the Tenth Plan by the Planning Commission.

Budgetary Support for 2004-05

(Recommendation Para No. 2)

The Committee note that Department of Information Technology had proposed an Outlay of Rs. 1294.38 crore for the year 2004-05 for its various schemes *viz.* R&D, Infrastructure Development, Human Resource Development, PSUs, NIC, ESC & Export Market Development and other miscellaneous programmes. However, keeping in view the importance of E-Governance and other IT projects being implemented

by the DIT and within the constraints of overall ceiling on the Annual Plan Budgetary support for 2004-05, the Planning Commission has given a special consideration and has increased the level of budgetary support from Rs. 495 crore (RE) in 2003-04 to Rs. 750 crore in the year 2004-05 which is an increase of over 50 percent.

The Committee note that out of the total budget of Rs. 750 crore, Rs. 215 crore will go to the E-Governance projects which have been special emphasis in the Annual Plan 2004-05. The Committee feel that with the remaining Rs. 535 crore, the Department may only be able to sustain the other schemes/projects without any scope for further progress.

The Committee is happy to note that the Department has been able to fully utilize its earlier Plan allocations. Against the allocation of Rs. 470 crore in 2002-03 and Rs. 495 crore in 2003-04, the Department is able to utilise Rs. 465.35 crore and Rs. 494.63 crore respectively. This makes it amply clear that the Department is serious in its assignment and has the capability to absorb and deliver. In the opinion of the Committee, this will prove to be a firm ground for the Department for demanding additional funds.

The Committee, therefore, impress upon the Department to seek more funds at the supplementary grants stage and also strongly recommend to the Planning Commission and Ministry of Finance that they should make suitable higher allocation as demanded by the Department.

Action Taken by the Government

The Department is seeking more funds at RE stage.

2-3 Per cent allocation by Ministries

(Recommendation Para No. 3)

The Committee note that the Planning Commission had issued an advisory to all Central Ministries/Departments on 24th April, 1998 to earmark 2 to 3 percent of their Plan budget for programmes/schemes relating to Information Technology, but regrettably the same has not been strictly adhered to by them. While formulating the Annual Plan 2004-05, the Planning Commission has taken an undertaking from all the Ministries/Departments to earmark a minimum of 2-3 percent of

their allocation for promoting Information Technology. The Secretary, DIT also informed the Committee that he has also requested all Chief Secretaries of States/UTs to allocate at least 3% of their budget for E-Governance applications and infrastructure.

The Department of IT is an implementing agency and a programme manager for coordinating across different Ministries. In case the Ministries/Departments/States do not allocate the 2-3 percent and do not adhere to the suggestions of the programme manager in providing necessary infrastructure, the DIT has less to lose in comparison to what the stakeholder will lose and the greatest loser will be the nation.

The Committee, therefore, would advise all the departments concerned to allocate 2-3 percent of their Plan Budget for IT in their own interest. The Committee also recommend that the DIT should closely monitor those Ministries/Departments/States who do not follow their advice.

Action Taken by the Government

A National E-Governance Action Plan has been drawn for implementation during 2003-07. The Plan seeks to lay the foundation and provide the impetus for long-term growth of E-Governance within the country. The plan seeks to implement a number of Mission Mode Projects at the centre (Central Ministries/Departments), State and integrated service levels to create a citizen-centric and business-centric environment for governance, create the right governance and institutional mechanisms, set up core infrastructure, formulate key policies and channelise private sector technical and financial resources into the national E-Governance efforts.

The concerned line Ministries/Departments have been advised to come up with detailed proposals for allocation by the Planning Commission/Ministry of Finance. Further, an Apex Committee for the National E-Governance Action Plan has been constituted under the Chairmanship of Cabinet Secretary with Secretary, DIT as Member Convener. The Committee will oversee and provide Policy directions for the implementation of National E-Governance Action Plan and ensure inter-ministerial coordination.

Secretary, DIT has advised Chief Secretaries of all States on May 27, 2004 to allocate atleast 3% of the State Budget for

E-Governance applications and infrastructure in line with the observations of the Standing Committee. A few of the States *viz*. UP, Gujarat, Rajasthan and Tamil Nadu have already responded. Govt. of UP, Gujarat and Rajasthan have stated that they plan to allocate 2 to 3% of their plan towards IT Applications. Govt. of Tamil Nadu has stated that they plan to allocate substantial funds towards E-Governance. Responses from other States are awaited. Reminders are being issued.

Further, DIT has issued guidelines for technical and financial support for establishment of State Wide Area Network to all the States.

National E-Governance Fund

(Recommendation Para No. 5)

DIT has proposed a National E-Governance Fund with a seed capital of Rs. 1,000 crore with a view to strengthening the programme management structure and leveraging Government budgetary resources to mobilize non-Government resources and competencies. Core programmes of the Department, have a close linkage with the larger objectives of the Common Minimum Programme in regard to development of human resources, employment generation and improvement of the quality of life of disadvantaged areas. In order to fulfil their objectives, the Committee desire that the Department should urgently work out the modalities of establishing a National E-Governance Fund.

Action Taken by the Government

DIT is presently evolving programme management structure and fund mechanism required for the National E-Governance Action Plan, and, for this purpose, a proposal for hiring the services of a consultant is under consideration. This exercise would help to formalize modalities for creating a National E-Governance Fund.

Media Lab Asia (MLA)

(Recommendation Para No. 6)

The Committee note that the role of Media Lab Asia is to facilitate the invention, refinement, and dissemination of innovations that benefit the masses. The project is closely working with industry, NGOs, and Government for this purpose. The basic idea of the Media Lab

programme is to take off research end-to-end, from the labs to the stage of productionisation and prototyping and thereafter field testing it for demonstrating replicable scalability and sustainability.

The MLA project had been approved for one year exploratory phase commencing from 1 January, 2002 to 31 December, 2002. The restructuring of MLA carried on till July, 2003 as a result of which no funds were utilized during the last two years. The Committee observe that a full scope nine year restructured programme was initiated from May, 2003. The restructured MLA carries the earlier vision forward with the same objectives with an outlay of Rs. 262 crore for the Tenth Plan.

The Technical Advisory Board (TAB) of the programme reconstituted in December 2003, has identified four thrust areas namely: ICT applications in education, primary healthcare, empowerment of persons with physical disabilities and providing rural connectivity. Stakeholders' workshops were conducted in each of these areas to workout road maps and prepare proposals for large scale deployment of technologies developed. According to the Department of IT, based on the conclusions of these workshops, new projects are being initiated for development and deployment of technologies. The outlay of Rs. 65 crore earmarked in the year 2004-05 is proposed to be utilized for ongoing projects and new projects being evolved as well as for pilot deployment.

The Committee are constrained to note that the Research Collaboration Agreement (RCA) with Massachusetts Institute of Technology (MIT), USA was not extended and the research projects taken up directly by Media Lab Asia had to be dropped as a part of the restructuring whereas the restructured programme has the earlier visions and same objectives. Precious two years of the Tenth Plan have been lost without any progress.

The Committee are apprehensive whether the Department would be able to utilize Rs. 227 crore which is to be contributed by the DIT to the project in the remaining 3 years of the Tenth Plan.

The Committee are also concerned on the deployment of the projects which are in a pilot stage. Technologies will be developed but will they be put to use effectively? Who will monitor the deployment of Media Lab Asia projects? According to the Committee, the initiative

is good but it requires more serious thought and planning at the ground level.

In view of all these projects in the mind of the Committee, they recommend that the budgetary provision for the left over programme, not be allowed to lapse after the Tenth Plan. The Committee further recommend that the Ministry of HRD, Health and others should also be associated to play a decisive role in the deployment of technologies. The Committee desire that they may be kept updated, on a quarterly basis about the progress of the various programme of MLA currently under development.

Action Taken by the Government

Media Lab Asia has constituted Core Groups in the areas of ICT Applications in Education, Primary Healthcare, Empowerment of persons with disabilities etc. These groups have representatives from M/o HRD, Health and Social Justice & Empowerment respectively. These Core Groups will identify the technologies to be developed in the respective sectors and also recommend a deployment strategy for Media Lab Asia.

A status note on the projects undertaken at Media Lab Asia would be sent to the Standing Committee on a quarterly basis.

Hardware Policy

(Recommendation Para No. 9)

The Committee note that the Department of IT has prepared a draft Hardware Policy and forwarded the same to the Ministry of Finance for their views. While discussing the Policy with the Cabinet Secretary, the Department had expressed that it would be able to finalize the policy paper by July, 2004. The Committee note that the Draft Paper on "National Electronics/IT Hardware Manufacturing Policy" was formulated after wide ranging consultations with industry associations and other stakeholders. Further, a number of promotional and EXIM policy/procedural measures included in the Draft Policy paper could not evolve the consensus required. The promotional and other measures contained in the Draft Paper concerns not only the Electronics/IT Hardware industry but also, the rest of the manufacturing sector in the country.

The Committee, therefore, desire that keeping in view the vision of the Hardware Policy to make India one of the key players in the global electronics/IT hardware manufacturing sector and integrate the same with the global value-added-chain, the Hardware Policy should get the approval of the Manufacturing Sector Competitiveness Council. The Committee also recommend that effort should be made by the Department to give boost to the hardware sector as this could generate substantial revenue due to the greater value added nature of the business.

Action Taken by the Government

The Common Minimum Programme (CMP) of the United Progressive Alliance purposes the establishment of a National Manufacturing Competitiveness Council (NMCC) to provide a continuity for policy dialogue to energize and sustain the growth of the manufacturing industry like food processing, textiles and garments, engineering, consumer goods, leather and IT hardware. NMCC will be headed by the Minister of Commerce and Industry, with the following composition:

1. Minister of Commerce & Industry—Chairman
2. Minister of Finance
3. Minister of Communication & Information Technology
4. Minister of Chemicals
5. Minister of Textiles
6. Minister of Food Processing Industry
7. Minister of Science & Technology
8. Minister of Small Scale Industry
9. Deputy Chairman, Planning Commission or his nominee
10. Ten representative of Industry Associations, Export Promotion Councils, Experts etc. as nominated by the Chairman.

The functions of the NMCC will be as under:

1. Recommending steps to evolve a macro policy framework conductive for enhancing the competitiveness of the manufacturing sector in general;

2. Identification of manufacturing sectors which have potential for global competitiveness;
3. Identification of constraints in such sectors;
4. Recommending national level and sector-specific policy initiative; and
5. Any other recommendations.

The proposed strategy as per the Draft paper on National Electronics/IT Hardware Manufacturing Policy was for supporting/ encouraging Electronic/IT Hardware manufacturing in the country pertaining to the following areas:

1. Tariff Policy
2. Issues related to EXIM policy
3. Setting up of Hardware Manufacturing Cluster Parks (HMCP)
4. Encouragement to sourcing of locally manufactured products
5. Upgradation of general infrastructure
6. Reduction in transaction time
7. Supporting R&D
8. Marketing "Made in India"
9. Encouraging relocation of manufacturing policy to India
10. Inviting large EMS (Electronics Manufacturing Service) companies to set up/augment Indian operation
11. Development of Semiconductor Industry
12. Looking beyond the Domestic Market
13. HRD in VLSI Design and Embedded Software
14. Amending Labour laws
15. Patenting
16. Quality Certification
17. Removal of Mandatory custom Bonding for Electronics and IT units

18. Enhancing rate of depreciation on computers

19. Dispensing with Procurement/Rewarehousing Certificates.

As mentioned earlier, the Tariff & Exim policy initiatives have largely been addressed for the Electronics/IT Hardware manufacturing sector whereas other promotional measures are common for all other manufacturing sectors too. Therefore, the key features of the Draft paper prepared by DIT have been referred to DIPP, the Secretariat for NMCC.

National Venture Capital Fund for Software and IT Industry (NFSIT)

(Recommendation Para No. 10)

The Committee note that National Venture Capital Fund for Software and IT Industry was set up in August 1999, with a corpus of Rs. 100 crore. The scheme was later handed over to Small Industries Development Bank of India (SIDBI) which created a fund called SIDBI Venture Capital Fund wherein 50 percent of the money was put by SIDBI, 20 percent of the money by IDBI and 30 percent of the money by Ministry of IT. Government has a representative nominee. So far SIDBI has sanctioned assistance to 24 units aggregating Rs. 58 crores. The rest of the money is in fixed deposits earning interest.

The success rate of SIDBI has been highest amongst all venture capital funds. The reason being that SIDBI is very conservative in giving funds. It has the fear of turning valuable capital into non-performing assets.

The Committee note that the Task Force constituted on 'Financing Knowledge based Industries for Small Enterprises Sector Including IT Industry' to look into the issues pertaining to availability of Venture Capital for Small Scale entrepreneurs in the country has not yet submitted its Reports. The Committee would like to be appraised of the major recommendations of the Report of the Task Force as soon as it is finalized and also action taken by the Government on the same.

The Committee further suggest that the Department which is a 1/3rd partner in the Fund should impress upon the NFSIT to sanction amounts to relatively sound proposals and should not be so conservative as 50 percent of the Fund is left unutilized. The Committee would like to be updated quarterly on the performance of the Companies funded by the Venture Capital Fund.

Action Taken by the Government

The status of the NFST set up by SIDBI with contribution from DIT is given below:

- the fund started its full operations in December, 1999 and has been investing in innovative and technology oriented ventures in the field of software and Information Technology.
- The aggregate sanctions made under the fund till date are Rs. 115.14 crore in respect of 43 companies. However, many of these sanctions did not result in actual investment in the past due to various reasons. The net sanctions under the fund as on September 30, 2004 were Rs. 66.29 crore in respect of 27 companies after taking into account cancellation of assistance due to non availment and other reasons.
- Out of the total corpus of Rs. 100 crore, the investible funds come to Rs. 65 crore, taking into account the Management fee for the fund (Rs. 2.5 crore p.a. for the fund life of 10 years) and about Rs. 10 crore to be kept aside for the follow on funding of assisted companies which may be needed in the latter part of the fund life to augment their capital.
- With the aggregate sanctions as on date of Rs. 66.29 crore in respect of 27 companies, it has almost reached the end of investment phase for NFSIT.
- NFSIT has constantly been looking out for good investment opportunities in the IT sector. Proposals are put up to an Investment Committee comprising outside experts and representatives of fund contributors (including DIT) which recommends them to the Board of Directors for approval. While NFSIT has been selective in funding companies by way of venture capital, this is in line with the practice followed in venture capital the world over as the investment has to be linked to the extent of innovation, prospects of success and outlook for exit for the fund. It has been the endeavour that every deserving venture proposal approaching is provided assistance.
- The investment climate for venture capital slowed down considerably in the last 2 years following the IT melt down in 2001 leading to a very substantial decline in the venture

capital activity for IT industry. As industry date shows, number of companies funded by VCs in a year actually declined. More particularly, venture capital investment in small companies by most VC players virtually came to a half. However, NFSIT continued to make investments.

- NFSIT has made a niche for itself as provider of venture capital for smaller companies in their early stage where as almost all other venture funds are investing in late stage and in larger companies.
- The fund has also commenced exits, with one of the investee companies, TRRS Imaging Ltd., Bangalore, giving the fund a return of over 30%. The fund has also commenced redemptions to its contributors. More successful exits are expected this year.
- Some of the investee companies are performing quite well. Two of NFSIT funded companies have been chosen by Earnest and Young for an event to be held next month at San Mateo, California (title "Global Hotbed Cross Border Company Showcase"), where about 30 IT companies from India, China and Israel will be presented to prospective US Investors so as to make them global players.
- Performance of the fund is periodically reviewed by the Board Directors of SIDBI Trustee Company Ltd. where Additional Secretary, DIT is a member. The detailed performance of the fund including performance of individual units is also put up to the Board of SIDBI Trustee Company Ltd. on an annual basis at the time of approval of accounts.

The Task Force on "Financing Knowledge Based Industries for Small Enterprises Sector' was constituted by the Ministry of Small Scale Industries. However, the Department of Information Technology has requested the Ministry of Small Scale Industries to provide a copy of the Report of the Task Force and the same would be forwarded to the Committee as and when received.

Semi-Conductor Complex Limited (SCL)

(Recommendation Para No. 11)

The Committee are constrained to find that SCL was not able to achieve the targets for sales turnover during the last two years. As

against the target to achieve sales turnover of Rs. 83 crore and Rs. 84.10 crore during 2002-03 and 2003-04, the Company could achieve the sales turnover of Rs. 40.22 crore and Rs. 54.88 crore respectively. The Committee are not convinced with the reasons for shortfall in achievement of the targets like a major order was spilled over to the next fiscal year due to delay in according product approval time, some of the orders envisaged did not materialise and demand constraints affected the sales in certain products. The Committee feel that these constraints are not new to the Company and timely corrective measures on the part of the Company could have avoided such major shortfalls.

The Committee further observe that SCL has revised the target for 2004-05 to achieve the sales turnover from Rs. 91 crore to Rs. 70.50 crore keeping in view the current product portfolio and the business opportunities envisaged by the Company. The Committee disapprove such a sudden change in targets fixed by the SCL. The Committee would like to know the reasons as to why these factors were not considered beforehand while fixing the targets. The Committee deprecate the lackadaisical approach of the Department in fixing the targets. They trust that by learning from the past experience, the SCL would leave no stone unturned to achieve the targets during 2004-05.

The Committee find that during 2002-03, against a target to produce 1138.910K Dies/Devices and 205K System/Board level products, the achievement remained 373.318K and 85.5014K respectively. Similarly, during 2003-04, against a target to produce 1228.93K Dies/Devices, SCL could however produce only 236.550K Dies/Devices. The Committee are not convinced with the reasons put forth by the Department for shortfall in targets like orders of some products planned for production could not fructify, in case of Systems/Board level products, less production of a product and delay in finalization of orders for energy meters by the customers, a product could not get transferred to production on account of iterations needed in product design for incorporating additional specifications as per customer requirements and the production plan of another product was reduced in view of funds constraints of a customer. The Committee feel such shortfall could have been avoided, had the Company taken timely remedial measures and ensured proper co-ordination.

The Committee deplore the sudden revision of the targets laid down for the year 2004-05. They note that SCL has scaled down the targets laid down earlier for producing 1300 K Dies/Devices to produce

907K dies/devices. The Committee, however, trust that the Company would explore all ways and means to ensure that the targets are achieved in time and in totality.

The Committee observe that various committees including Disinvestment Commission had considered various alternatives for the revival of the SCL. However the matter of merger of SCL with BEL and that of merger of SCL with Society for Integrated Circuits Technology and Applied Research (SITAR)/the Gallium Arsenide Enabling Technology Centre (GAETEC) have not materialized. The Committee further find that the Planning Commission had suggested that the Department of IT should form a small group of experts in the Department to suggest two-three alternative plans for revival of SCL and desired that the Group should submit the Report within two months. The Committee would like to be apprised of the action taken by the Department in this regard. Subsequently, the Committee desire that SCL should get the Report examined by business experts and make viable and feasible plan for profitable functioning of SCL. The Committee are of the view that SCL should also aggressively look to the disinvestment option with the Companies in the Semi-conductor Industry.

The Committee are informed that SCL has implemented VRS during the year 2004 and given voluntary retirement to 46 employees (21 executives and 25 non-executives). The Committee would like to know from which source the funds have been procured by the Company to implement the VRS during this year.

Action Taken by the Government

SCL made its best efforts in terms of constant follow-up/co-ordination with customers to avoid spilling over of the major order to the next fiscal as well as in expediting finalization of the envisaged orders to achieve the set targets for 2002-03 and 2003-04. Corrective measures were also taken by the Company for securing additional orders as well as increasing the revenues from other products in its endeavour to cover the expected shortfall. These measures, however, did not fructify despite intense efforts. Also, the constraints faced by the company in competing in the commercial market segment due to its infrastructural and consequent technological limitations, unviable scale economies compared to overseas companies who operate on a global scale and at much higher level of technology compared to that

in SCL, limited and fragmented available/addressable domestic market as well as lack of experienced technical manpower due to attrition in the past, have been major handicaps in improvement of its performance. Therefore, even as SCL has been fulfilling its role *vis-a-vis* the strategic sector in terms of meeting the IC requirements of the strategic organizations like ISRO, DAE, DRDO for their mission specific and critical projects, its commercial performance has not been upto the desired level since the volume of business from the strategic sector is not large enough (Rs. 15-20 crore a year) to make SCL's operations viable.

In so far as the revision of the targets for 2004-05 from Rs. 91 crore to Rs. 70.50 crore and the corresponding revision of the physical targets is concerned, this got necessitated mainly because of the need to revise revenue targets in respect of a product segment (telecom systems) as higher level of business was envisaged earlier keeping in view certain expected orders/tenders which, however, did not fructify. Also, unexpected fall in prices of another product segment (Electronic Energy Meters) resulted in revision of the revenue target set earlier. Due to the above, the company had to revise its targets from Rs. 91 crore to Rs. 70.50 crore for the year 2004-05. SCL would make all efforts to realize the set target.

As regards the alternative plans for revival of SCL, this was discussed in a brain storming session held on 01.6.2004 as part of the incisive analysis exercise of Company's operations, by a group of senior officers from the DIT, outside experts from NPL, C-DOT, NIC alongwith the Board of Directors of SCL and other company officials. From the meeting it emerged that SCL was essentially catering to the strategic needs of DOS, DRDO and DAE. In this context, sharing of the company's operational expenses by the strategic organizations and DIT could be looked into. Subsequently, a meeting was also held under the chairmanship of Principal Scientific Adviser to the Government of India on 16.9.2004 to address, *inter-alia*, the current utilization of SCL's facilities by various user departments and the future role of SCL covering R&D, prototyping etc. At this meeting, it was reaffirmed that the raison d'etre for SCL has all along been to cater to the needs of the three Strategic Departments *viz*. DOS, DRDO and DAE; SCL has continued to fulfill this role over the years. The volume of business from the Strategic Departments, however, is not enough to make SCL commercially viable. SCL needs budgetary support from the Government to sustain the operations of the wafer fab and continue

its core R&D activities. Additional funds would also be required in due course towards replacement of obsolete equipment and upgradation of technology to cater to the future needs of the Strategic Departments. The requirement of funds to sustain the operations at SCL and for carrying out R&D activities should be equally shared by the three Strategic Departments and DIT. Follow-up action on the recommendations emerging from this meeting is underway.

As regards the disinvestment option with companies in Semiconductor industry, while the disinvestment Commission in its report (Nov. 2002) following the disinvestment study had recommended no disinvestment of SCL on strategic grounds, the company has been making sustained efforts to seek strategic alliance with overseas Semiconductor companies. It is only recently that a Company *viz*. M/s. Analog Integrated Corporation (AIC), USA has shown interest in a tie-up for foundry business which would enhance capacity utilization of the wafer fabrication facility at SCL. The proposal in this regard is expected to be finalized shortly.

As regards funds utilised on the Voluntary Retirement Scheme (VRS) implemented recently (5.5.2004—15.6.2004) against which 46 employees were given voluntary retirement, the Company has sourced these funds from its working capital.

Vidya Vahini Programme

(Recommendation Para No. 12)

The Committee note that the Department of Information Technology conceived "Vidya Vahini" programme as a pilot project to make full use of Information & Communication Technology (ICT) and internet to transform the learning environment from mono-dimensional to multi-dimensional and the same has been implemented in 7 districts of the country. The Committee are informed that further replication of the programme in schools across the country would be carried out by the Ministry of HRD/State Governments as part of the scheme "Introduction of ICT in schools". The Committee desire that the Department of IT should follow-up with the Ministry of HRD/State Governments for successful replication of the Vidya Vahini Programme and provide them the technical and other support, if necessary.

Action Taken by the Government

The Ministry of Human Resource Development (MHRD) has revised its CLASS Programme and formulated a Scheme "Introduction of ICT in Schools". The Scheme incorporates all the key features of the Vidya Vahini Programme. The Scheme has been approved by the Expenditure Finance Committee. Further, MHRD is in the process of obtaining the approval of the Cabinet for implementing the Scheme. In this regard, MHRD has circulated a Draft Note for the Cabinet for seeking approval of the Scheme.

Community Information Centres (CICs)

(Recommendation Para No. 13)

The Committee appreciate the effective implementation of the Community Information Centres (CICs) Project in the North-Eastern States. So far DIT have set up CICs at 487 block headquarters in North-Eastern States, out of which 486 CICs have been established and all are operational. The Committee note that the scheme is being replicated during 2004-05 in the State of Jammu & Kashmir for setting up 139 CICs. CICs in the 60 Block Headquarters of J&K State would be made operational during 2004-05.

The Committee further observe that a proposal is in the pipeline to set up 328 CICs in the State of Uttaranchal. The estimated cost is around Rs. 70 crore to be incurred over 4 years. The project would be implemented by the State Government, which will mobilise a contribution of 10 percent of the outlay. The DIT's support will be to the extent of Rs. 63 crore. The project will be implemented in two phases. This would necessitate an additionality in the Plan Budgetary support at the rate of Rs. 18 crore per year. The Committee recommend that similar efforts should be made for setting up of CICs in other States of the country. The Committee further observe that recurring expenditure on the maintenance of the CICs is being provided for as RE Plan by the Government. The Committee are of the opinion that once the infrastructure is in place, maintenance should be funded by the State after the successful continuance of the project for a limited period, say 3 years.

Action Taken by the Government

Department of Information Technology (DIT) is pursuing similar efforts for setting up CICs in other States of the country depending upon the availability of additionality in the Plan Budgetary Support. As set of guidelines are under preparation in DIT under its National e-Governance Plan for Community Information Centre in other States.

DIT proposes to set up 328 CICs at the village level in an entrepreneurship modern Uttaranchal. Another model being contemplated is for setting up of CICs in the schools for imparting Information and Communication Technology (ICT) based education in the Government Schools located in the Andaman & Nicobar Islands and Lakshadweep Islands. During school hours these CICs would be utilized for education purpose and off—school hours by the general population to access citizen-centric services. The project would be handed over to the administration of Union Territories after 3 years for maintenance, control and operations.

Manpower for Application Specific Integrated Circuit (ASIC) Design

(Recommendation Para No. 14)

The Committee regret to note that allocation made for the scheme has always been revised downward. During 2002-03, BE was Rs. 2 crore which was reduced to Rs. 70 lakh at RE stage and the same was fully utilised. Also during 2003-04, though the Department proposed an outlay of Rs. 125 crore, the Planning Commission approved only Rs. 3.5 crore. The allocation was reduced to Rs. 37 lakh at RE stage, which was fully utilised. The Committee note that during 2004-05, the Department proposed an outlay of Rs. 20 crore, however, the Planning Commission approved Rs. 10 crore.

In this connection, the reason given by the Department that the institutions were not able to absorb more funds is disturbing. The Committee are of the opinion that either the programme content is not popular to attract students or there is lack of awareness among the students. The Committee strongly feel that the reasons for such a phenomenon should be gone into by a high level team of experts and adequate measures taken to ensure better utilisation of funds provided for the scheme.

According to the Committee, a much better plan has to be drawn up for an effective curriculum, which enhances the potential for employment, in consultations with the Semi Conductor industry players and suitable measures taken to effectively improve the curriculum in ongoing basis. The curriculum could be passed on to C-DAC which is already offering training courses in the field.

Action Taken by the Government

The project "Special Manpower Development for VLSI design and related software (SMDP) was initiated in March 1998 for a duration of 5 years and was to end in March 2003. The project has been extended by 2 years upto March 2005. The project involves 7 Resource Centres (RCs) and 12 Participating Institutions (PIs). The main activities of the project are:

- Instruction Enhancement Programme (IEP) for training faculty of PIs
- Training of laboratory technicians
- Setting up of VLSI design laboratories
- Development of Learning Materials (LMs) on various topics
- Teaching of various courses on VLSI design and related software at:

— B.E./B.Tech level (Type IV manpower)

— M.E/M.Tech. level in the areas of Electronics, Communications, Computer Science, Instrumentation etc. (Type III manpower)

— M.E./M.Tech. in VLSI design & Micro-electronics (Type II manpower)

— Ph.D. in various aspects of VLSI design and related software (Type I manpower):

It is borne out from the number of students of each type passing out each year from 12 PIs as given below that the programme is popular amongst students:

	1999-2000		2000-01		2001-02		2002-03	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
Type-IV-B.E./B.Tech.	500	523	500	682	500	736	500	752
Type-III-M.E./M.Tech.	36	70	48	92	54	144	60	154
Type-II-M.E./M.Tech.	—	10	50	35	75	52	100	73
Type-I-(Ph.D)	—	—	—	—	—	—	—	5
Total	536	603	598	809	629	932	660	984

As regards low utilisation of funds, especially in 2003-04, the allocation of Rs. 3.5 crores made by Planning Commission during 2003-04 was for the SMDP-Phase I (on-going) as above, and also for starting the second Phase of SMDP. The second phase of the SMDP involving the existing institutions of SMDP Phase I and additional institutions, has been evolved by a Working Group set up in April 2003 consisting of Members from MHRD, AICTE, UGC, Industry Associations (NASSCOM & MAIT) and experts from leading Academic Institutions & R&D laboratories. The Working Group has prepared a Detailed Project Report (DPR) which includes the model curriculum for M.Tech in VLSI design taking into account the latest developments. As suggested by the Committee, the model curriculum has been passed on to C-DAC.

Department of Electronics Accredited Computer Courses (DOEACC) Society

(Recommendation Para No. 15)

During 2003-04, 75,000 students were targeted to be registered, against which only 49,391 were actually registered. Similarly 1,50,000 candidates were targeted to appear in various levels of Exams, against which only 1,30,057 candidates were actually admitted. Also during 2002-03, against 92,612 students to be registered and 1,77,329 candidates

to be admitted, 75,884 students were registered and 1,60,028 candidates were admitted.

The reason for decline in registration during 2003-04 is stated to be absence of academic recognition of DOEACC Courses in addition to the continuing impact of the slowdown in the global IT market. The Committee note that in order to fulfil the targets of 2004-05 to register 82,500 students and to admit 1,65,000 candidates to various O, A, B & C level courses, the Department has proposed to secure academic recognition of DOEACC 'B' Level Course. This would also increase the acceptability of DOEACC Courses amongst students and industry. All India Council for Technical Education (AICTE) has constituted a Committee to look into the matter of recognition of qualifications awarded by non-formal sector institutions including DOEACC. The said Committee has advised the Society to approach Distance Education Council, Indira Gandhi National Open University (IGNOU) for academic recognition of DOEACC 'B' Level qualifications. This application for academic recognition of DOEACC 'B' Level is under process by IGNOU. The Society is also monitoring a publicity campaign to raise the level of awareness in regard to DOEACC Courses amongst students and parents.

The Committee, therefore, desire that the matter should suitably be followed up with IGNOU at the highest level for registration of DOEACC 'B' Level courses. They would further like to know whether there is any proposal from IGNOU to give recognition to DOEACC to 'O', 'A' and 'C' Level courses also.

Action Taken by the Government

(a) Academic Recognition of DOEACC 'B' Level Course: The matter regarding the academic recognition of DOEACC 'B' Level Course has been progressed with All India Council for Technical Education (AICTE). The same was discussed in AICTE meeting held on October 29, 2003 wherein a Committee was constituted to evolve a policy framework on the issue of education in the non-formal sector *vis-a-vis* formal sector. During the meeting of the said Committee, it was decided that Academic Recognition of DOEACC 'B' Level will be considered by Distance Education Council (DEC), Indira Gandhi National Open University (IGNOU), for which a Sub-Committee

consisting of Pro-Vice Chancellor of IGNOU, ED, DOEACC & Advisor (QA), AICTE was constituted. A meeting of this Sub-Committee was held on January 27, 2004 in AICTE based upon the recommendation of which, DOEACC Society has submitted a formal application for Academic Recognition of DOEACC 'B' Level. This is being constantly followed up with Prof. S.C. Garg, Pro-Vice Chancellor, IGNOU.

(b) Academic Recognition of the remaining courses *i.e.* 'O' 'A' & 'C' Levels. It is mentioned that at present there is no equivalent of 'O' Level Course offered in the formal sector of IT Education. As such, there is no action proposed to be taken by the Society. However, the DOEACC 'A' Level Course has already been recognized by IGNOU for lateral entry to their MCA Programme. As regards, the academic recognition of DOEACC 'C' Level is concerned, the matter will be taken up with IGNOU only after professional recognition is accorded by MHRD to DOEACC 'C' Level Course for which the request of the Society has been referred to AICTE. Accordingly, in the meeting with AICTE on October 29, 2003, professional recognition of 'C' Level was discussed in addition to academic recognition of 'B' Level. The matter is being pursued with AICTE constantly.

Comments of the Committee

(Please *see* Para No. 8 of Chapter-I)

National Informatics Centre (NIC)

(Recommendation Para No. 16)

The Committee observed that NIC is primarily an implementing agency having 3000 people workforce spread across the country. Thus most of the funds allocated to NIC are spent on salaries, increments etc., and merely 15 to 20 per cent. is left as capital budget. The manpower has remained constant for the last 5 to 6 years whereas the workload has increased fifty to sixty times. NIC has an institutional mechanism which gives it the flexibility to engage indirect additional manpower in response to the requirements of a particular project. However, NIC is always short of talent as the attrition rate is fairly high as talented hands leave the organizations for greener pastures.

According to the Committee, as NIC is the IT backbone of the country, it should not be overburdened with so much of work where the volume of work to manpower ratio is 50:1. NIC will never be able to do justice to the assignments entrusted to it resulting in delayed projects.

The Committee feel that serious thought should be given to the functioning, manpower requirement, preserving talent, congenial environment in NIC by utilizing modern management techniques and attracting fresh talents as adopted by multinational companies.

Action Taken by the Government

The Committee has recommended that serious thought should be given to the functioning, manpower requirement, preserving talent, congenial environment in NIC by utilizing modern management techniques and attracting fresh talents as adopted by multinational companies.

As far as manpower is concerned, there is a backlog of 183 posts for the last five years for which DIT has already been processing approval for carrying out recruitment by NIC.

As pointed out by the Parliamentary Standing Committee, the workload of NIC has been increasing to a great extent. This is due to new responsibilities/tasks being given to NIC. Also advancement in technology necessitates induction of fresh professionals to handle new technologies. NIC which was initially in 1985-86, an application developer, has become a major infrastructure and turnkey solution provider to the Government. Both NICNET and Data Centres have grown considerably requiring major support. The security requirements of this infrastructure and applications have also grown exponentially thus requiring minimal extra professional resources. NIC would need additional 200 posts at the level of System Analyst (Pay Scale Rs. 8000-275-13500) in the area of PK 1, Security, Network, Java/open source, Web Development and GIS. The annual financial implementation at the current salary level is of the order Rs. 4.45 crore.

Comments of the Committee

(Please *see* Para No. 11 of Chapter-I)

CHAPTER III

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

National Action Plan on E-Governance (NEGAP)

(Recommendation Para No. 4)

The Committee note that the Common Minimum Programme (CMP) of the United Progressive Alliance (UPA) has affirmed the commitment of the Alliance to promote e-Governance on a massive scale. In order to give effect to this commitment, the Department of Information Technology needs adequate budgetary support for implementation of the National e-Governance Action Plan (NEGAP), which has been elaborated by the Department of Information Technology (DIT) in collaboration with the Department of Administrative Reforms & Public Grievances.

The Committee further note that the Department of Information Technology intends to strengthen the core infrastructure, including establishment of State-wide Area Networks up to the level of Blocks and National/State level Data Centres, promotion of common service delivery centres and replication of successful e-Governance applications on a pilot scale, for which the Department had proposed an outlay of Rs. 630 crore for 2004-05. The Committee are concerned to note that the Planning Commission has approved only Rs. 215 crore. As a result the Department would not be able to extend the network infrastructure up to block level in the first 18 months as it was planned and will take it up in a phased manner.

However, keeping in view that provisions are not necessarily being made in the Plan Budget and that many initiatives are funded on the non plan side, the Committee are convinced with the line of action of the Planning Commission that Rs. 215 crore is sufficient in the initial phase and the Department should assess the realistic requirement of additional funds before making a demand for more funds.

While appreciating the efforts in doing the study on the e-readiness index of States and UTs, the Committee feel that the e-readiness of States and UTs has to be re-assessed annually on an ongoing basis in order to get them into e-Governance mindset. The Committee also desire that the Department should formulate the proposals for additional requirements of funds on e-Governance keeping in view the level of implementation and execution of the plan.

Action Taken by the Government

Keeping in view the allocation of Rs. 215 crore made for e-Governance in the current financial year, implementation schedules has been redrawn and as such there won't be any need for additional funds during the current financial year.

Centre for Development of Advance Computing (CDAC)

(Recommendation No. 8)

The Committee observe that the allocation for C-DAC for the year 2004-05 is Rs. 40 crore which is substantially higher than allocations of Rs. 10 crore and Rs. 25.50 crore made during 2002-03 and 2003-04 respectively. However, the Committee learn that the year 2004-05 would be the first full year of consolidated and expanded C-DAC, emerging as the largest and most premier R&D institution in ICT in the country. The Committee desire that keeping in view the broad objectives of C-DAC during the year 2004-05, the allocation of Rs. 40 crore made should be optimally utilised. If need be, the request for additional requirement of funds should be placed before the Planning Commission in Mid-term appraisal of the Annual Plan.

An ongoing exercise to identify potential users and applications (Commercial), effective marketing of the potential of Grid Computing and the benefits, packaging of appropriate solutions through timely development of appropriate software and Middleware for various commercial applications could increase the prospects of additional revenue earnings through C-DAC. In this connection, the Committee may be apprised of the action taken by the Department of IT with regard to suggestion made by the Planning Commission that C-DAC should develop an appropriate business model ensuring that its R&D activities could be carried out in a sustainable manner. In view of the Committee, the Commercial applications had to be an integral part of

the high-end research. One of the super computing nodes could be devoted to storage of large-scale data to meet the business requirements of commercial organizations like banks, insurance etc.

Action Taken by the Government

The Committee's Observations and C-DAC's Proposed Plans as regards these Observations. Allocations for C-DAC for 2004-05 is Rs. 40 crore, which is substantially higher than the allocations of Rs. 10 crore and Rs. 25.50 crore made during 2002-03 and 2003-04 respectively.

The year 2004-05 is the first full year of consolidated and expanded C-DAC, emerging as the largest premier R&D institution in ICET (Information, Communication and Electronics Technologies) in the country. It has 14 Labs in 10 locations, with close of 1800 people workforce. Its technical agenda has been realigned carefully, reflecting its core competency built over the year, adding emerging technology areas of great importance and synergising the skill sets available at its various centres into an coordinated action plan. The core R&D focus areas identified are as follows:

— High Performance Computing (HPC) and Grid Computing

— Multilingual Computing, Applied Artificial Intelligence and Speech Processing

— Power Electronics, Agri-Electronics, Real Time Systems, Embedded Systems and VLSI Design

— Cyber Security

— Broadband, Wireless and Internet Technologies

— Geomatics

— Health Informatics

— Software (including OSS/Linux), Multimedia, Graphics and Database Technologies

— e-Governance and ICT for Addressing Digital Divide

— Education and Training (including e-Learning).

Higher fund allocation for 2004-05 as compared to previous years is due to the following reasons:

— This, being the first full year of consolidated and expanded C-DAC, we are making aggressive efforts to consolidate our core competence in areas where we excel, invest in new areas, disruptive technologies and national importance areas, so that we can contribute our best on an ongoing basis. Our activities in the above mentioned R&D areas are focused towards those of societal importance, strategic sectors, disadvantaged sections, etc. on the one hand and those, which compete in the market on the other hand. We see our contributions to the former for bringing national benefits, whereas, the latter is important to us to generate internal revenues (IR).

— Sufficient R&D funding is important to us at this stage of consolidation and core competency building. Only when we reach this stage, we can confidently move up the value chain and progress to the next round of technology map at research, development, prototyping level with reasonable amount of internal revenues invested in the same.

— Grid computing is a major research area for the year. It involves the communication fabric at high-speed across at premier scientific R&D and academic institutions for sharing of computing resources. It also involves upgrade of PARAM series of computers with next generation interconnection fabric (including associated VLSI chips), new performance chip-sets and additional grid-enabled applications. It also involves high-performance needs of multi-vendor, interoperable grid computing environment of various users.

— There is also a crying need to modernize infrastructure and meet the manpower expenses of core staff to ensure that our momentum on core competency areas are not lost.

Keeping in view the broad objectives of C-DAC during the year 2004-05, the allocation of Rs. 40 crore made should be optimally

utilized. If need be, the request for additional requirement of funds should be placed before the Planning Commission in Mid-term appraisal of the Annual Plan.

C-DAC has already planned to optimally utilize the current allocation of Rs. 40 crore. The R&D area-wise allocation of this amount has been planned as follows:

R&D Area-wise Break-Up of Proposed Grant-in-Aid Allocation For Financial Year 2004-05

(Rs. in crore)

Sl.No.	R&D Areas	Funds Earmarked for the activity
1.	High Performance Computing (HPC)	8.00
2.	Grid Computing	14.50
3.	Multilingual Computing, Applied Artificial Intelligence and Speech Processing	4.00
4.	Power Electronics, Agri-electronics, Real Time Systems, Embedded Systems and VLSI Design	4.00
5.	Cyber Security	1.50
6.	Broadband, Wireless and Internet Technologies	3.00
7.	Geomatics	0.50
8.	Health Informatics	0.50
9.	Software (including OSS/Linux), Multimedia, Graphics and Database Technologies	3.00
10.	e-Governance and ICT for Addressing Digital Divide	0.50
11.	Education and Training (including e-Learning)	0.50
	Total	40.00

The above is the proposed plan of expenditure for the allocated core grant. We anticipate additional requirement of funds to the tune of Rs. 10 crore as follows:

(Rs. in crore)

Sl.No.	Planned Activity	Funds Required
1.	Collaboration with TIFR for development of mathematical libraries for HPC systems	3.50
2.	Set up of VLSI Lab and MEMS Lab at C-DAC, Noida	1.29
3.	Setup of Linux HPC Technology Excellence Centre	0.60
4.	Adding new R&D initiatives in Scientific & Engineering computing such as Earthquake Engineering, Systems Biology, Air Quality Management, Content-based Image Retrieval and Visualization, Multiscale Modeling & Simulations and Water Resource Modeling	1.50
5.	Campus-wide Networking at C-DAC, Noida	0.90
6.	Infrastructure creation at C-DAC, Noida	1.30
7.	Shifting of Hyderabad office to JNTU campus and setup of HPC infrastructure	1.00
	Total	10.09

C-DAC should develop an appropriate business model ensuring that its R&D activities could be carried out in a sustainable manner.

C-DAC's current sources of funding are as follows:

— *core funding*, which is important to C-DAC for core competency building in the fast moving and highly competitive areas of ICET (Information Communications and Electronics Technologies). This involves the use of core funding primarily for research work and technology development phase.

— *Sponsored project funding* is used on top of the core funding for enhancement of our core competencies/technology base to enable technology to be converted into usable product prototyping or field level effort to meet real user needs.

— *Internal Revenue (IR)* is generated by the commercialization of the R&D outputs. IR is re-ploughed for growth of respective group strengths in various areas and lab reserves.

The flow of funds from one source to another for effective utilization of funds is shown in the value-chain model of Figure 1.

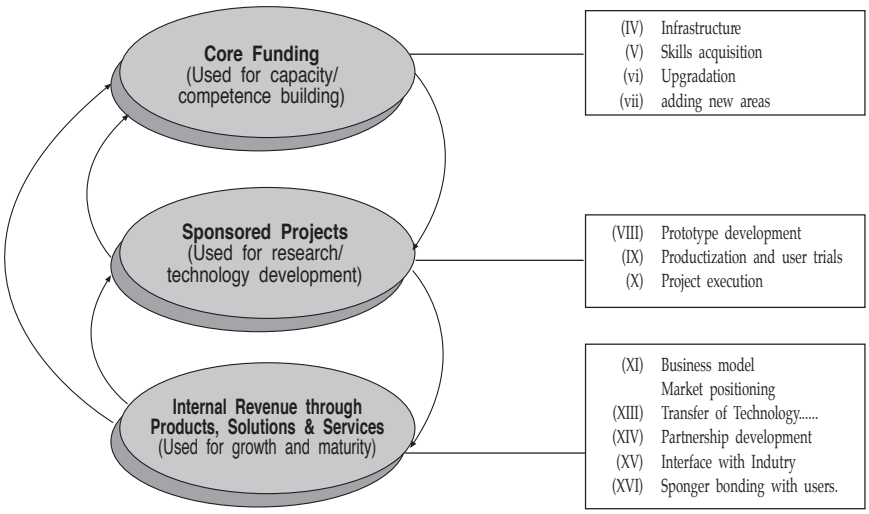

Figure 1. C-DAC's value-chain model.

The Following is the proposed business model for C-DAC to convert the R&D efforts into products, solutions, programmes and services of practical relevance to users and markets.

1. *Direct User Interfacing*. In this method, C-DAC will directly interface with the end user for development and deployment of technologies. This approach is suitable for high-technology, high-cost and limited volume products. For example, the PARAM systems and turnkey solutions based on PARAM systems can be handled using this approach. Several specialized turnkey solutions like some of the e-Governance applications, which involve deployment of outputs of C-DAC's multiple R&D areas into the solutions can also be handled effectively by this approach.

2. *User Interfacing Through Partners*. In this method, end user/market requirements are jointly met by C-DAC and one or more partners. The model leverages on the strengths of the partners involved for providing solutions/products by creating win-win situation for all. For example, C-DAC can play the role of technology developer with a partner who takes the role of technology deployment. The C-DAC and ATNF (Apollo Telemedicine Network Foundation) partnership arrangement for deployment of C-DAC's telemedicine system in two North Eastern states of India is an example of this model, being used on an experimental basis.

3. *Technology Transfer*. This approach is suitable for reach of products/solutions to a specific segment/sector. It is also useful for those products/services/solutions for which C-DAC's strengths lies only in technology development and not in productization and marketing of the associated products/solutions/services. A recent good example of this approach used by C-DAC was technology transfer of Tetra (Terrestrial Trunked Radio) Digital Professional Radio system developed by its Thiruvananthapuram centre to SRT, UK for tapping the UK market. Similar arrangement is being worked out for this technology for Chinese market.

4. *Distributed Network.* This approach is suitable for high-volume, low-priced products to address a large clientele base. This requires appointment of a set of distributors and dealers who will be trained to market our products/solutions/services to the potential users. C-DAC has successfully used this approach for the propagation of its multilingual products.

5. *e-Commerce*. Since C-DAC deals with the area of Communication and IT, several of its products fall in the category of software products. Such products can be marketed using e-commerce technologies. C-DAC has used this model for some of its software products.

6. *Hybrid Approach*. A combination of two or more of the above mentioned approaches is often necessary for converting the R&D efforts into products/solutions/programmes/services of practical relevance to users and markets and then their actual deployment and use in the market place. For example, a partnership arrangement and/or transfer of technology for productization and manufacturing of a technology developed by C-DAC may be necessary and then distribution/dealers network may be required for the propagation of the jointly developed product into the market place.

Having elaborated on the business model of converting C-DAC's R&D efforts into marketable products/solutions/programmes and services, we would also like to emphasize on the following points:

— Scaling up/mass production of a developed technology requires a suitable production methodology, pricing strategy, market position strategy, etc. which go far beyond technology per se. This will require a full-fledged business and marketing team in C-DAC, which is as strong as C-DAC's R&D arm. This, in turn, will call for providing approval for additional manpower requirement for this purpose.

— Given the inherent high-risk nature of this field, due to technology obsolescence, time-to-production and market and intense competition, it will be necessary to allow C-DAC to operate with full flexibility.

While we are willing to increase internal revenue from the market, our role as an R&D lab with a nation-building objective, should not get diluted by forcing us to depend dominantly on IR. Therefore, 50:50 approach for core R&D funding and IR generation would put us in a balanced position in respect of deep R&D commitment *vis-a-vis* market positioning leading to revenue generation and would also provide us an incentive to perform well in demanding and competitive market place.

In summary, C-DAC is willing to model its operations on 50:50 revenue model of government funding and IR generation, provided government funding is increased to match its IR generation on year-to-year basis.

The commercial applications had to be an integral part of the high-end research and one of the supercomputing nodes could be devoted to storage of large scale data to meet the business requirements of commercial organizations banks, insurance, etc.

The idea of making commercial applications the integral part of the high-end research is welcome. C-DAC has made a few efforts in this direction. The development of Strategy Development (SD 2000) package on PARAM 10000 and its deployment to MDR, Singapore is an example of it. Similarly, development of Bourse Analyzer for National Stock Exchange is another example of the same. Use of one of the Supercomputing nodes for storage of large-scale data to meet

business requirements of commercial organizations like banks/ insurance, etc. is not a feasible solution in the current form. The main reason is that the operations of banking and insurance sectors are highly critical in nature and require dedicated systems backed with suitable fail-over arrangements. As the two supercomputing facilities of C-DAC are being used for research and development by various scientific and engineering organizations of the nation, including C-DAC's internal members, it will not be possible to devote these systems for commercial use by organizations like banks/insurance, etc. However, a separate PARAM configuration, which has been suitably configured for the end user's needs and also has necessary fail-over arrangements, can be easily deployed to commercial organizations to serve their requirements.

CHAPTER IV

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

-NIL-

CHAPTER V

RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH REPLIES ARE INTERIM IN NATURE

Sponsorships for Media Lab Asia

(Recommendation Para No. 7)

The Committee note that the Department has so far been able to get only one sponsorship from M/s Tata Sons for Media Lab Asia research thus contributing Rs. 1.5 crore against a target of Rs. 35 crore. The Committee feel that the programme lacks sponsorship because of its complexities and the short-sightedness of the Department towards its outcome.

The Committee desire that the Department should have a continuous dialogue with various industrial houses who spend on universal obligation for identifying the lacunae in their efforts so as to take steps to attract more sponsorship.

Action Taken by the Government

Media Lab Asia would initiate a dialogue with the industry to attract more sponsorship for the programme.

NEW DELHI;
1 *March,* 2005
10 *Phalguna,* 1926 *(Saka)*

M.M. PALLAM RAJU,
Chairman,
Standing Committee on
Information Technology.

ANNEXURE I

MINUTES OF THE NINETEENTH SITTING OF THE STANDING COMMITTEE ON INFORMATION TECHNOLOGY (2004-2005)

The Committee sat on Thursday, 20 January, 2005 from 1100 hours to 1325 hours in Committee Room No. 'B', Parliament House Annexe, New Delhi.

PRESENT

Shri M.M. Pallam Raju—*Chairman*

MEMBERS

Lok Sabha

2. Shri Nikhil Chaudhary
3. Shri Mani Cherenamei
4. Shri Sanjay Dhotre
5. Shri P. Karunakaran
6. Dr. P.P. Koya
7. Smt. Nivedita S. Mane
8. Col. G. Nizamuddin
9. Shri Ashok Kumar Rawat
10. Shri Chander Shekhar Sahu
11. Shri P.C. Thomas

Rajya Sabha

12. Shri Vijay J. Darda
13. Shri Ashwani Kumar
14. Shri Balbir K. Punj
15. Smt. Sarla Maheshwari
16. Shri N.R. Govindarajar
17. Shri K. Rama Mohana Rao
18. Shri Motiur Rahman
19. Shri Sanjay Nirupam

SECRETARIAT

1. Shri Raj Shekhar Sharma — *Deputy Secretary*
2. Shri Shri K.L. Arora — *Under Secretary*
3. Shri D.R. Shekhar — *Assistant Director*

2. At the outset, the Chairman welcomed the Members to the sitting of the Committee. The Committee then took up the following Draft Reports for consideration:

(i) Draft Report on Action Taken by Government on the Recommendations/Observations of the Committee contained in its First Report on 'Demands for Grants' (2004-05) relating to Department of Information Technology.

(ii) *** *** ***

(iii) *** *** ***

(iv) *** *** ***

3. The Committee adopted the above-mentioned Action Taken Reports with some amendments/modifications.

4. The Committee, then, authorised the Chairman to finalise and present the above-mentioned Reports to House on a date and time convenient to him.

The Committee, then, adjourned.

ANNEXURE II

ANALYSIS OF ACTION TAKEN BY GOVERNMENT ON THE FIRST REPORT (FOURTEENTH LOK SABHA)

[*Vide* Paragraph No. 5 of Introduction]

(i) Recommendations/Observations which have been accepted by the Government: Paragraph Nos: 1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 14, 15 and 16

Total: 13
Percentage: 81.25%

(ii) Recommendations/Observations which the Committee does not desire to pursue in view of the reply of the Government: Paragraph Nos: 4 and 8

Total: 2

Percentage: 12.5%

(iii) Recommendations/Observations in respect of which replies of the Government have not been accepted by the Committee and which require reiteration: Paragraph No: Nil

Total: Nil

Percentage: Nil

(iv) Recommendations/Observations in respect of which replies are of interim nature: Paragraph No. 7

Total: 1

Percentage: 6.25%