

REPORT

INTRODUCTORY

Department of Information Technology (DIT) which forms part of the Ministry of Communications and Information technology is *inter-alia* responsible for formulation, implementation and review of National Policies in the field of Information Technology, Silicon facility, Computer based information technology and processing including hardware and software, standarisation of procedures, promotion of knowledge based enterprises, Information Technology Education and development of electronics. The various schemes/programmes of Department of Information Technology are implemented both in house as well as through PSUs/Societies under DIT and also through various programmes being funded under R & D. National Informatics Centre (NIC) of the Department of Information Technology provides computer support to Central/State Governments Departments and District Administrations. The Major Schemes/Project taken up by DIT are Educational Research Network(ERNET), Community Information Centres(CICs), Media Lab Asia(MLA), Bioinformatics, Nanotechnology, Indian Language Technology, Digital Library, Indian Computer Emergency Response Team(CERT), Centre for Information and Network Security(CINS), Vidya Vahini and Gyan Vahini, High Performannce Computing(Igrid), Special Manpower Development for VLSI Design, E-Governance and NIC. All these schemes are covered under the Plan funds whereas Non-Plan allocation is towards Secretariat expenditure of DIT, its attached offices namely Standarisation Testing & Quality Certifications(STQC) Dte. and its registered societies.

2. The Department of Information Technology has presented Demand No.16 for Grants for the year 2003-04 as under:-

| <i>2003-2004</i> | <i>Plan</i> | <i>Non-Plan</i> | <i>Total</i> |
|------------------|---------------|-----------------|---------------|
| Revenue | 431.10 | 32.66 | 463.76 |
| Capital | 38.90 | --- | 38.90 |
| Total | 470.00 | 32.66 | 502.66 |

3. Department of Information Technology had proposed an Annual Plan Outlay of Rs. 1255.80 crore and Gross Budgetary Support of Rs. 1146.90 crore for the year 2003-04. However, Planning Commission has approved Gross Budgetary Support of Rs 470 crore (*i.e.*, around 41% of the proposed outlay) which is at the same level of Rs. 470 crore in the year 2002-03.

4. When asked about contention of the Planning Commission for keeping this years' budget at the level of previous year, DIT in a written note has stated that as understood from the Planning Commission, the Ministry of Finance had made available certain over all ceilings on the Annual Plan 2003-04. This was marginally higher (3 per cent or so) as compared to 2002-2003 ceiling. Accordingly, Planning Commission could not step up the Gross Budgetary Support for Department of Information Technology for the year 2003-04 as compared to the 2002-03.

5. During examination of Demands for Grants for the year 2001-02, the reason advanced by Planning Commission to reduce the plan allocation was that each Ministry was told to spend about three percent of its Budget on schemes relating to Information Technology and therefore the reduced allocation for Department of Information Technology was stated to be sufficient. In this context, during evidence, the Committee desired to know the present position and the percentage of allocations that have been spent by the Ministries on development of Information Technology. In reply, it has been stated that in general, the range has been between one to two percent. The Department expressed their inability to have separate figures relating to other Ministries and stated that practically, no Ministry has so far earmarked separate budget or provision for IT related projects.

6. The Committee further desired to know whether any monitoring has been done in this regard. In reply, it has been submitted that earmarking is done by the Planning Commission and monitoring in this regard has also to be done by them only. The Committee called a representative of the Planning Commission to clarify the position in this respect who stated that the Planning Commission had requested various Ministries/Departments on the basis of recommendation of a Task Force that every Department should make 2 to 3 percent provision from their budget for IT sector. The witness made it clear that it was only a request and it was not mandatory. No separate head was created for this. The Planning Commission has no data about the provision or spending by the individual Ministries/Departments.

7. The Committee further enquired whether the Commission ever tried to find out whether the Departments have actually been spending prescribed funds on IT or not. The Advisor, Planning Commission replied in the negative. Reacting to a suggestion of the Committee that Planning Commission should make the provision of 3 percent spending on Information Technology from each of the Departments/Ministries budget as mandatory, the witness replied in affirmative.

8. Scheme-wise details of the Tenth Five Year Plan allocations proposed by the Department of Information Technology and the approved by the Planning Commission are as under:-

(Rs. in Crores)

| <i>SCHEME NUMBER/NAME</i> | | <i>Tenth Plan(2002-07)</i> | | <i>Tenth Plan(2002-07)</i> | |
|---------------------------|---|----------------------------|----------------|----------------------------|----------------|
| | | <i>PROPOSED</i> | | <i>APPROVED</i> | |
| | | <i>OUTLAY</i> | <i>GROSS</i> | <i>OUTLAY</i> | <i>GROSS</i> |
| | I. R&D PROGRAMMES | 3947.42 | 1787.73 | 2281.05 | 923.00 |
| | II. INFRASTRUCTURE DEVELOPMENT | 2364.00 | 1864.00 | 714.00 | 594.00 |
| | III. HUMAN RESOURCE DEVELOPMENT | 306.19 | 269.81 | 128.38 | 92.00 |
| | IV. MISCELLANEOUS | 280.68 | 209.00 | 128.38 | 92.00 |
| | V. PSUs | | | | |
| | Semiconductor Complex Ltd. | 264.71 | 264.71 | 5.00 | 6.00 |
| | VI. NIC | 2500.00 | 2500.00 | 975.00 | 975.00 |
| | VII. ESC & Export Market Development Prog. | 86.50 | 76.00 | 30.50 | 20.00 |
| | Grand Total | 9749.50 | 6971.25 | 4263.93 | 2714.00 |

9. It may be seen that for the entire Tenth Five Year Plan 2002-2007, the Department of Information Technology had proposed Gross Budgetary support of Rs.1,787.73 crore for R&D programmes, Rs.1,864.00 crore for Infrastructure Development, Rs.269.81 crore for Human Resource Development, Rs.209.00 crore for Miscellaneous programmes, Rs.264.71 crore for Semi-

Conductor Complex Ltd., Rs.2,500 crore for NIC and Rs.76 crore for ESC & Export Market Development Programmes. However, the Planning Commission has approved only Rs.923.00 crore for R&D programmes, Rs.594.00 crore for Infrastructure Development, Rs.92.00 crore for Human Resource Development, Rs.105.00 crore for Miscellaneous programmes, Rs.5.00 crore for Semi-Conductor Complex Ltd., Rs.975 crore for NIC and Rs.20 crore for ESC & Export Market Development Programmes.

10. It is learnt that the Planning Commission had constituted a Working Group on Information Technology Sector to formulate the Tenth Five Year Plan(2002-07) for Communication and information Sector under the Chairmanship of secretary, Department of IT. The Working Group Report was submitted to the Planning Commission in November, 2001. The salient features of the Working Group Report are stated to be that India does have enormous opportunities due to globalisation and consequent lowering of tariff barriers. These need to be consolidated through brand equity, marketing contacts, upgrading of manpower skill base, moving up the value chain, better infrastructure and economies of scale through larger domestic market base, R & D especially on e-Security aspects and strengthening of hardware sector. There is urgent need to strengthen IT infrastructure both for hardware and software exports and citizen centric interface. Distance learning is stated to be the need of the hour to spread education and regular upgradation of skills. This will need interconnecting all schools and colleges in the country through a network with initial support from the Government. This will promote IT among masses and minimize digital divide.

11. The thrust areas in the Tenth Plan are stated to be:-

- (i) Software and Service export
- (ii) To promote e-governance in both Central and State Governments to enable transparent and efficient administration
- (iii) Establishment of E-Infrastructure upto Block level
- (iv) To promote e-commerce
- (v) IT security
- (vi) IT for masses

- (vii) To promote setting up of call Centres, medical transcription Centres, content creation
- (viii) Indian languages interfaces to computers
- (ix) Human Resource Development
- (x) To promote distance education and online learning for spreading education and also evolve models for acquiring leadership position in this field.
- (xi) Create World class IT & Telecom infrastructure
- (xii) Vidya Vahini and Gyan Vahini programmes i.e. to carry the benefits of IT technology to students in their formative years.
- (xiii) Technology development in emerging areas such as bio-informatics & nano-technology

12. When asked about the role of the Department to see that these thrust areas are properly looked into, the Secretary, DIT submitted that they are creating the technology support base so that they can help various Ministries/Departments in whichever sector there is an IT application, it has to be rolled up and they can provide the technological insights and help them in technology projects. In certain areas they have established pilot projects and expects the concerned Department to pick up the project and roll it out. In this way they have been able to establish by now a fairly high degree of acceptability with the Ministries.

13. Scheme-wise details of Annual Plan Outlay and Gross Budgetary Support for the year 2003-04 as proposed by the Department of Information Technology and approved by the Planning Commission are as under:-

(Rs. crores)

| <i>SCHEME NUMBER/NAME</i> | | <i>ANNUAL PLAN (2003-2004)</i> | | <i>ANNUAL PLAN (2003-2004)</i> | |
|------------------------------|---|------------------------------------|--------------|------------------------------------|--------------|
| | | <i>PROPOSED</i> | | <i>APPROVED</i> | |
| | | <i>OUTLAY</i> | <i>CROSS</i> | <i>OUTLAY</i> | <i>CROSS</i> |
| I. R&D PROGRAMMES | | | | | |
| 400 | SAMEER | 34.59 | 25.50 | 23.00 | 13.00 |
| 500 | Industrial Electronics Promotion Programme. Incubation Robotics | 3.50 | 3.50 | 2.50 | 2.50 |
| 600 | Microelectronics & Nano-Tech Development. Programme. -NMC | 20.00 | 20.00 | 3.00 | 3.00 |
| 700 | Technology Development Council | 12.50 | 12.50 | 6.00 | 6.00 |
| 800 | Development of Strategic Electronic Eqpt. | 7.63 | 7.63 | 3.00 | 3.00 |
| 1201 | Electronic Component & Material | 12.40 | 10.40 | 7.50 | 5.50 |

| | | | | | |
|------|---|---------------|---------------|---------------|---------------|
| | Dev. Prog. | | | | |
| 2200 | C-DAC | 20.00 | 14.00 | 59.00 | 14.00 |
| 2400 | Photonics/Optoelectronics | 6.00 | 6.00 | 3.00 | 3.00 |
| 2700 | ERDCs | 72.89 | 34.89 | 11.50 | 8.00 |
| 2800 | Electronics in Health and Bio-Informatics | 10.00 | 10.00 | 6.00 | 6.00 |
| 3200 | Technology Dev. for Indian Languages | 11.00 | 11.00 | 6.00 | 6.00 |
| 3600 | Development of CG Industry | 1.00 | 1.00 | 0.50 | 0.50 |
| 3800 | Transport & Power Electronics | 5.30 | 5.30 | 3.50 | 3.50 |
| 6400 | Centre for Liquid Crystal Research | 2.80 | 2.80 | | |
| 6600 | IPR Promotion Programme | 0.70 | 0.70 | 1.00 | 1.00 |
| 7200 | Promotion/R&D in IT/Special IT Projects | 12.04 | 12.04 | 16.00 | 16.00 |
| 7210 | IT for Masses (incl. Citizen Portals) | 15.00 | 15.00 | 16.00 | 16.00 |
| 7220 | Media Lab. In Asia | 100.00 | 80.00 | 0.10 | 0.10 |
| | R&D Sub-Total | 347.35 | 272.26 | 167.60 | 107.10 |
| | II. INFRASTRUCTURE DEVELOPMENT | | | | |
| 1700 | ERNET | 21.00 | 21.00 | 6.00 | 6.00 |
| 1710 | 'Vidya Vahini' & 'Gyan Vahini' Prog. | 60.00 | 60.00 | 5.00 | 5.00 |
| 1000 | STQC | 39.50 | 37.50 | 33.50 | 31.50 |
| 1610 | STPI & EHDP | 92.00 | 92.00 | 31.00 | 6.00 |
| 1620 | Digital DNA Park | 20.00 | 20.00 | 3.50 | 3.50 |
| 7010 | IT Venture Capital | 0.00 | 0.00 | 5.00 | 5.00 |
| 7030 | Electronic Governance | 100.00 | 100.00 | 40.50 | 40.50 |
| 7050 | IT Act / Certification & Network Security | 6.76 | 6.76 | 6.00 | 6.00 |
| 7300 | Semiconductor Layout Design Act-2000 | 2.50 | 2.50 | 0.50 | 0.50 |
| 7400 | Community Information Centres (CIC) | 60.00 | 60.00 | 25.00 | 25.00 |
| | Infrastructure Sub-Total | 401.76 | 399.76 | 156.00 | 129.00 |
| | III. HUMAN RESOURCE DEVELOPMENT | | | | |
| 2903 | CEDTI | 15.50 | 9.00 | 12.00 | 5.50 |
| 1500 | NCST | 11.00 | 6.50 | 8.00 | 3.00 |
| 2910 | Manpower Development/Employment Generation | 7.55 | 7.55 | 5.00 | 5.00 |
| 2920 | Special Manpower for VLSI Design | 125.00 | 125.00 | 3.50 | 3.50 |
| | Human Resource Development Sub-Total | 159.05 | 148.05 | 28.50 | 17.00 |
| | IV. MISCELLANEOUS | | | | |
| 4000 | Head quarter (Secretariat & Bldg.) | 10.50 | 10.50 | 10.50 | 10.50 |
| 2300 | Electronics For Rural/Social /Agri/Water Sector | 20.49 | 8.13 | 1.00 | 1.00 |
| 5500 | Tech. Information and Forecasting | 0.00 | 0.00 | | |
| 6800 | Electronics Industry Information Prog. | 0.50 | 0.50 | 0.20 | 0.20 |
| 6820 | E-Commerce & Info-Security (incl. Smart Cards) | 25.00 | 25.00 | 10.00 | 10.00 |
| 6830 | Policy Formulation & Eco Analysis in IT Sector | 0.00 | 0.00 | 0.50 | 0.50 |

| | | | | | |
|-----|---|----------------|----------------|---------------|---------------|
| | Miscellaneous Total | 56.49 | 44.13 | 22.20 | 22.20 |
| | Sub-Total (I to V) | 964.65 | 864.20 | 374.30 | 275.30 |
| | V. PSUs | | | | |
| 200 | Semiconductor Complex Ltd. | 52.77 | 48.27 | 10.50 | 6.00 |
| | VI. NIC | 226.23 | 226.23 | 181.70 | 181.70 |
| | VII. ESC & Export Market Development Prog. | 12.15 | 8.20 | 10.95 | 7.00 |
| | Grand Total | 1255.80 | 1146.90 | 577.45 | 470.00 |

14. It may be seen from above that Planning Commission has made major cuts in the plan allocations for the year 2003-04. Against the proposed Gross Budgetary Support of Rs. 272.26 crore for R & D, Rs. 399.76 crore for Infrastructure Development, Rs. 148.05 crore for Human Resource Development, Rs. 48.27 crore for Semiconductors Complex Limited(SCL) and Rs. 226.23 crore for NIC, the Planning Commission has approved Rs. 107.10 crore for R & D, Rs. 129.00 crore for Infrastructure Development, Rs. 17.00 crore for Human Resource Development, Rs. 6.00 crore for Semiconductors Complex Limited(SCL) and Rs. 181.70 crore for NIC respectively.

15. Expressing its concern over the reduced allocations made by the Planning Commission not only in respect of one project but on all the schemes, the Committee enquired how the Department would be affected. In reply, the Secretary, DIT stated that in the budget, the ongoing projects have been fully provided with funds. To that extent they can go with the curtailed provisions. They will not be able to take up some of the ambitious projects. It was supplemented that out of budget of Rs. 470 crore, Rs. 180 crore will go to NIC. With the remaining funds, the Department can hardly do anything substantially. It has been pleaded that the Planning Commission must allocate the funds from wherever it can, divert funds from sectors which are creating smaller multiplier to a sector which is creating larger multiplier, in terms of return on investment. At present, IT sector is stated to have a share of 2.5 percent of the GDP and 18 per cent of the total export and by 2008 it will be sharing 7 percent of the GDP and 35 per cent of the total export of the country. The contribution of IT sector will thus increase three times than what it is at present. The Planning Commission must, therefore, allocate on the basis of return on investment.

16. In a subsequent note, it has been stated that in order to enable them to proceed with their developmental projects at proper momentum, the Department strongly felt that the additional funds for the following essential schemes should be allocated to them in fiscal 2003-04:-

| <i>(Rs. in Crore)</i> | |
|---------------------------------------|-----------------------------|
| <i>Name of the Scheme</i> | <i>Requirement of funds</i> |
| Media Lab Asia | 50 |
| E-Governance | 60 |
| DNA Park | 7 |
| STPI | 8 |
| ERNET | 5 |
| Indian Language Technology | 5 |
| IT Security | 15 |
| Community Information Centres | 30 |
| Manpower for VLSI Design | 5 |
| Vidya Vahini & Gyan Vahini Programmes | 30 |
| National Informatics Centre | 20 |
| Total | 235 |

17. The Committee notes with concern that the Department of Information Technology has been allocated a meagre amount of Gross Budgetary Support of Rs 470 crore for the year 2003-04, which is identical with the allocation made during 2002-03. It is further a matter of grave concern that the Department has been allocated Rs. 470 crore which is around 41 percent of the proposed outlay of Rs.1146.90 crore projected by the Department of Information Technology to implement its not only ambitious but important schemes. The Planning Commission has reduced the proposed outlay because the Ministry of Finance had indicated ten per cent growth over all ceiling for the Annual Plan 2003-04 which is marginally higher (3 per cent or so) as compared to previous year's Plan. Though the overall ceiling is marginally higher by 3 percent yet the Department of Information Technology has been completely ignored by keeping the budgetary allocations for 2003-04 at the level of the previous year. As a result of reduced allocations, Department of Information Technology is unable to take up additional schemes which it intended to take to keep pace with the development in IT sector. It is unfortunate that for such an exciting and growing sector as information technology, Government could not find resources. In one of the meetings called to discuss plan allocations, Planning Commission has candidly stated that because of resource

constraint, it would be difficult for the Commission to agree for a step up of more than ten per cent over the budget support approved for the year 2002-2003. Such a conservative approach will not be able to take the country forward by unshackling the vicious circle of poverty and lower technological growth. The country can ill afford to ignore the fact that many countries are spending billions of dollars to explore the potentials of this exciting sector.

18. The Committee observes that in the year 2001-02, Planning Commission had reportedly justified the reduced allocation to the Department of Information Technology on the ground that each Ministry was told to spend about three percent of their Budget on schemes relating to Information Technology. However, since it was not mandatory, no separate head was created. The Ministries/Departments did not take it seriously and spent only one to two per cent on IT related schemes. Even at this stage, no figure is available with regard to percentage or amount if any that was spent by the Ministries on development of Information Technology. Planning Commission did not even monitored this aspect. No doubt, Department of Information Technology being a small Department is playing the role of catapult. The main thrust has to come from the other Ministries/Departments. Therefore, the Committee urges the Government to make mandatory provisions in this regard so that the desired funds are channelled to IT sector. The requests made earlier have failed to yield the desired results.

19. The Committee learns that Working Group on Information Technology Sector set up to formulate the Tenth Five Year Plan(2002-07), constituted by the Planning Commission has recognised that “India does have enormous opportunities from globalisation and consequent lowering of tariff barriers”. It emphasised the need “to consolidated these through brand equity, marketing contacts, upgrading of manpower skill base, moving up the value chain, better infrastructure and economies of scale through larger domestic market base, R & D especially on e-Security aspects and strengthening of hardware sector”. Urgent need is felt to strengthen IT infrastructure both for hardware and software exports and citizen centric interface. Distance learning to spread education and regular upgradation of skills is considered to be the need of the hour through interconnecting all schools and colleges in the country(approx.) through a network with initial support from the Government. This

will help promote IT among masses and minimize digital divide as suggested by the Working Group.

20. On the Contrary, the Committee finds that the Planning Commission without paying any heed to the observation of the Working Group has drastically curtailed the Tenth Five Year Plan allocations for all the schemes proposed to be undertaken by the Department of Information Technology. Against the proposed Gross Budgetary support of Rs.1,787.73 crore for R&D programmes, Rs.1,864.00 crore for Infrastructure Development, Rs.269.81 crore for Human Resource Development, Rs.209.00 crore for Miscellaneous programmes, Rs.264.71 crore for Semi-Conductor Complex Ltd.(SCL), Rs.2,500 crore for National Informatics Centre(NIC) and Rs.76 crore for ESC & Export Market Development Programmes, the Planning Commission has approved only Rs.923.00 crore for R&D programmes, Rs.594.00 crore for Infrastructure Development, Rs.92.00 crore for Human Resource Development, Rs.105.00 crore for Miscellenous programmes, Rs.5.00 crore for Semi-Conductor Complex Ltd., Rs.975 crore for NIC and Rs.20 crore for Electronics & Computer Software Export Promotion Council(ESC) & Export Market Development Programmes. This is negation of planning and makes a mockery of it. If resources are to be allocated on considerations other than the expert advice, there is no justification for undertaking such elaborate and exhaustive studies. Plea of funds constraint is totally misplaced in priority areas such as information technology which is wisely considered as an engine to drive growth. It is for the Government to mobilize the resources. Nation's progress should not be slowed down due to the inability or inefficiency of those entrusted with the mobilization of resources. The Committee, therefore, strongly urges the Government to see development of information technology in right perspective and find out ways and means to mobilize adequate resources for ICE sector.

21. The Committee expresses its serious concern at the blanket reduction in the Annual Plan proposals for the year 2003-04. Against the proposed Gross Budgetary Support of Rs. 272.26 crore for R & D, Rs. 399.76 crore for Infrastructure Development, Rs. 148.05 crore for Human Resource Development, Rs. 48.27 crore for Semiconductors Complex Limited(SCL) and Rs. 226.23 crore for NIC, the Planning Commission has approved Rs. 107.10 crore for R & D, Rs. 129.00 crore for Infrastructure Development, Rs. 17.00 crore for

Human Resource Development, Rs. 6.00 crore for Semiconductors Complex Limited(SCL) and Rs. 181.70 crore for NIC respectively. The Committee apprehends that due to such reduction the Department will not be able to implement the schemes undertaken by them in the given time-frame. Moreover, reduced allocation does not allow the Department to take up any new project except meeting the needs of the ongoing projects. The Committee urges the Department to take up the matter for enhancing the plan allocation at RE stage with the Planning Commission at the highest level.

22. The Committee observes that out of the allocation of Rs. 470 crore, Rs. 181 crore would be utilised by NIC and with the remaining funds it would not possible to achieve anything substantially. The Committee shares the views of the Department that the Planning Commission should allocate sufficient funds to the Department of IT by diverting funds from sectors which are creating smaller multiplier to a sector which is creating larger multiplier in terms of return on investment. As informed, at present IT sector has a share of 2.5 percent of GDP and 18 per cent of the total export and by 2008, it will be sharing 7 percent of the GDP and 35 per cent of the total export of the country. The contribution of IT sector of the GDP will thus increase three times than what it is at present. Prudence requires that this sector be encouraged by higher allocation of funds commensurate with the needs of the projects proposed by the Department.

23. The Committee further notes that the Department of Information Technology has asked for additional funds of Rs.235 crore break-up being Rs. 50 crores for Media Lab Asia, Rs.60 crore for e-Governance, Rs.7 crore for DNA Park, Rs. 8 crore for Software Technology Parks of India (STPI), Rs. 5 crore for ERNET, Rs. 5 crore for Indian Language Technology, Rs. 15 crore for IT Security, Rs. 30 crore for Community Information Centres, Rs. 5 crore for Manpower for VLSI Design, Rs. 30 crore for Vidya Vahini & Gyan Vahini Programme and Rs. 20 crore for National Informatics Centre. These are some of the important schemes in IT sector and the Department of Information Technology intends to achieve a break through by implementing ambitious schemes which in turn will help generate higher growth. The Committee strongly recommends that additional requirement of funds of the Department should be met fully at RE stage to generate proper momentum.

Nano-Technology Development Programme

24. The Committee has been informed that the Nano-Technology is an emerging technology of manipulating matter at the atomic scale. It will make most products lighter, stronger, cleaner, less expensive and more precise. The Nano-Technology is expected in to usher the next industrial revolution. The Nano-Technology research is being strongly supported by the Governments in USA, Europe, China and Japan. The USA has launched a major initiative in Nano-Technology namely the National Nano-Technology Initiative (NNI). The funding for the broad area of Nano-Technology during financial year 1999 is stated to be \$225 million. During financial year 2000 this was \$270 million. The launching of the NNI in financial year 2001 led to a major step up to \$495 Million. The funding was further increased to \$604 million and \$774 million respectively during financial year 2002 and financial year 2003. This shows the importance of and expectations from this emerging branch of technology. The research in this area would vastly depend upon availability of trained manpower and monetary resources. The Department has planned to develop this area in cooperation with leading academic and R&D institutions in the country.

25. It may be seen that out of the proposed outlay of Rs.20 crore for 2003-2004 for Nano-Technology Development Programme, DIT has been allocated Rs.3 crore only. The Committee desired to know the plan of the Department to expend the allocated funds. In reply, the Department has stated that after catering to the requirements of the ongoing projects and initiating new projects in the area of micro-electronics, the balance available is proposed to be utilised towards initiating activities viz., Nano-Materials at Centre for Materials for Electronics Technology (C-MET), initiation of new projects at Central Scientific Instrument Organisation (CISO) and at some academic institutions. It has been stated that these institutions have their own laboratories which are classified as societies. For example, they have a society or lab dealing with the area of electronic materials called Centres for Materials for Electronics Technology. Each of these labs have certain skills in conventional technology. They are trying to upgrade those skills and direct them to work in the area of Nano-Technology. Then there is a need to link up very closely with the United States of America, Europe and several other countries as they are very advanced in this area with major funding of the order of a billion dollar per year going into it, not only through the Non Resident Indians but also through other experts. They also have to create new Centres of

Excellence, where the major investments will be required and this is the area which the Department have to sacrifice in view of the reduced allocation.

26. The Committee drew the attention of the Department on under-utilisation of funds during 2002-2003, where out of Rs. 3.00 Crore allocated for the scheme, the utilization had been around Rs. 70 lakh only. The reasons for the same are stated to be primarily non fulfilment of new project proposals in the area of chip design and process technology.

27. **The Committee notes that Nano-Technology is an emerging technology of manipulating matter at the atomic scale. It will make most products lighter, stronger, cleaner, less expensive and more precise and is expected to usher the next industrial revolution. The Nano-Technology research is being strongly supported by the Governments in USA, Europe, China and Japan. In USA alone, Nano-Technology Initiative has been launched in financial year 2001 by stepping up the investment to \$495 million. During financial year 2002 and 2003, the funding has been \$604 million and \$774 million respectively. The research in this area would vastly depend upon availability of trained manpower and resources. The Department has planned to develop this area in cooperation with leading academic and R&D institutions in the country.**

28. The Committee feels sorry to learn that out of the proposed outlay of Rs.20 crore for 2003-2004 for Nano-Technology Development Programme, allocation is Rs.3 crore only. With the allocated funds, the Department will cater to the requirements of the ongoing projects and initiate new projects in the area of micro-electronics. The balance available would be utilised to initiate research activities viz., Nano-Materials at Centre for Materials for Electronics Technology (C-MET), initiation of new projects at Central Scientific Instrument Organisation (CISO) and some academic institutions. Further, Department has planned to upgrade certain skills in conventional technology and to direct them to work in the area of Nano-Technology. The Committee is at loss to understand what exercises could be taken up for research and material development in Nano-Technology field when the developed countries are spending billions of rupees in this field. The Committee, therefore, strongly feels that in view of the immense potentials of Nano-Technology, much higher investment is required to be made for this scheme at the initial stage itself. The Committee,

therefore, strongly recommends that the proposed allocation of Rs.20 crore should be restored so that the Department is able to take some worthwhile initiative in Nano-Technology.

29. The Committee notes that in the financial year 2002-2003, Rs.3 crore was provided for Nano-Technology development programme. However, the Department could utilise only Rs.70 lakh. The Committee is not convinced by the reasoning given by the Department for under-utilisation of funds i.e. non fructification of new project proposals in the area of chip design and process technology. Obviously, the Department has to tune up to undertake big initiatives in the emerging fields of technology. The Committee would like to be assured that in future sincere efforts will be made to fully utilize the funds. If there is failure, the Department will not be in a position to justify more funds for the scheme.

Other R&D Programmes

30. It has been observed that for R&D programmes, the Planning Commission has drastically curtailed the outlay proposed by the Department of Information Technology as shown below:-

| <i>(Rs. in crore)</i> | | | |
|-----------------------|--|---|--|
| <i>Sl. No.</i> | <i>Scheme</i> | <i>Tenth Plan Outlay proposed by Department of Information Technology</i> | <i>Tenth Plan Outlay approved by Planning Commission</i> |
| 1. | Micro-Electronics and Nano-Tech. Development Programme | 210.00 | 18.00 |
| 2. | Technology Development Council | 120.00 | 30.00 |
| 3. | Components and material development programme | 128.09 | 51.00 |
| 4. | Promotion/R&D in IT/Special IT projects | 270.00 | 85.00 |

31. Asked about the details of the major schemes which have to be sacrificed under the above sub-heads because of the drastic reduction in Tenth Plan Outlay by the Planning Commission, the Department of Information Technology has stated that in respect of Micro-Electronics and Nano-Technology Development Programme, major thrust has to be given to the area of Nano-Technology. The reduced allocation would result primarily in sacrificing setting up

of new Centres of Excellence and would also curtail the extent of activities in other categories. As regards the Components and Materials Development Programme, the programme for major strengthening of the infrastructure at the three laboratories of C-MET at Pune, Hyderabad and Thrissur which had been envisaged during the 10th Plan would be diverted restricting the areas of focus to high purity materials and electronic packaging and reducing the work to be done in emerging areas such as opto-electronics and sensors and actuators.

32. Further some of the programmes originally envisaged to be taken under TDC at the time of formulation of 10th Five Year Plan are now proposed to be funded independently. These include: support in the area of nano-electronics, bio-informatics, and technology incubation programme to help the industry in moving up the value chain. The TDC programme is used to identify and support R&D in emerging areas. As a result of reduced budget, the support to new areas would have to be limited to identification and incubation. Separate budget allocation would be requested for the programmes that mature.

33. For Promotion of R&D in IT/Special IT Projects, the programme has sub-components viz. Projects/Technology for software sector, e-learning projects and Special IT Projects as and when needed. The projects envisaged in the 10th Plan are National Resource Centre for Online Learning - NCST, Mumbai, Multimodel Digital Distance Education for IT and Other critical Technologies – School of Education Technology, Jadavpur University, Web Based Intelligent Interactive Tutoring – IIT Delhi and Development of Component Based Functionality to e-Learning tools – C-DAC, Hyderabad. Further, many new schemes/projects are also proposed to be initiated during the Tenth Plan.

34. Software sector is stated to be the maximum Foreign Exchange (FE) earner in the IT sector and will become the highest export component in the entire economy by 2008. It will also provide the highest employment in IT sector. India's competitive strength in this area is already globally well recognized and is bringing pride to the nation. However, DIT has to play its role in many ways to maintain the momentum. It is expected that as the roll out for the Tenth Plan builds momentum, more projects will be identified in the remaining part of the Tenth Plan in response to changing needs. Therefore, there is stated to be a need for the entire funds as projected for the 10th Plan outlay namely Rs. 270.00 Crore for the software sector.

35. The Committee is perturbed to observe that for the Tenth Five Year Plan, the Planning Commission has drastically curtailed, the outlay proposed by the Department of Information Technology for its R&D programme. Against the proposed allocation of Rs.210.00 for Micro-Electronics and Nano-Technology Development Programme, Rs. 120 crore for Technology Development Council, Rs. 128.09 crore for Components and Material development programme and Rs. 270 crore for Promotion/R&D in IT/Special IT projects, the Planning Commission has approved only Rs. 18 crore for Micro-Electronics and Nano-Tech. Development Programme, Rs. 30 crore for Technology Development Council, Rs. 51 crore for Components and Material development programme and Rs. 85 crore for Promotion/R&D in IT/Special IT projects. This is a sad commentary on development of R&D programmes in the emerging field of Information Technology on which nation has pinned high hopes.

36. Due to reduced allocations, many R & D programmes will have to be sacrificed. Under Nano-Technology development programme, scheme for setting up of new Centres of Excellence can not be taken up, under Components and Materials Development Programme, the programme for major strengthening of the infrastructure at the three laboratories of C-MET at Pune, Hyderabad and Thrissur which had been envisaged during the 10th Plan would be diverted restricting the areas of focus to high purity materials and electronic packaging and reducing the work to be done in emerging areas such as opto-electronics and sensors and actuators and under Technology Development Council programme also, the support to new areas would have to be limited to identification and incubation. The Committee is not at all impressed by the reasons advanced by the Planning Commission and desires the Department of Information Technology to take up the matter at the highest level in the Government to convince the Planning Commission/Ministry of Finance of the important need to have a strong R&D programme in the Information Technology sector of the country.

37. The Committee is aware that software sector is the maximum Foreign Exchange (FE) earner in the IT sector and will become the highest export component in the entire economy by 2008. It will also provide the highest employment in IT sector. India's

competitive strength in this area is already globally well recognized and is bringing pride to the nation. No doubt major initiative in software rests with the private sector, yet the Department of Information Technology has been playing its role of facilitator of Information Technology in its own humble way by initiating the programmes/projects which can strengthen software segment of Information Technology sector. As the roll out for the Tenth Plan builds momentum, more projects will be identified in the remaining part of the Tenth Plan in response to changing needs. The Committee recommends to Planning Commission to reconsider the Department's projection for the 10th Plan outlay of Rs. 270.00 Crore for the software sector at the time of mid-term appraisal of the Plan.

INFRASTRUCTURAL DEVELOPMENT

Education Research Network (ERNET)

38. The objective of ERNET is stated to be to strengthen national capabilities in the area of computer networking and data communication, to make it competitive by world standard and to carry the benefits to nationwide academic and research community, industry and variety of users. During evidence, it was stated that DIT has signed MoU with University Grants Commission (UGC) to provide connectivity both V-SAT and internal fibre lay out connectivity. 115 Universities have been recommended by the UGC for connectivity during the course of this year. So far 28 Universities have been connected. An MoU has also been signed with All India Council for Technical Education(AICTE) and they have to connect 150 out of 1200 engineering colleges.

39. In this regard, the Committee enquired whether the Department has sufficient funds to achieve these objectives. A representative of DIT informed that this project was approved by the Cabinet Committee on Economic Affairs (CCEA) on 31st May, 2002. As a part of that the Department was given grant of Rs.55 crore for the capital equipment to install servers and the backbone leased lines. Out of the same Rs.33.9 crore have been released. ERNET has been setting up the basic infrastructure to connect the Universities and Engineering colleges so that they can talk to each other without going outside. The capital cost which will provide the connectivity is being met by the Government through the Ministry. The recurring expenditure for each of the University and College is being borne by UGC.

40. To a specific query, it was replied that initially ERNET was set up by the funds provided by UNDP which were six million dollars. In the year 1988, the investment was made and they set a proof of concept, connected IITs and showed the connectivity. Now whatever infrastructure they had provided has become obsolete and they have to upgrade the equipments.

41. In a written reply furnished to the Committee, it has been stated that in the absence of additional allocation, an amount of Rs. 11 crore as part of spill-over balance of Rs. 21.10 crore is being released to ERNET out of the budget allocation for Vidya Vahini and Gyan Vahini Programmes. A provision of Rs. 6 crore has also been made in the Annual Plan 2003-04 towards the said spill-over balance and DIT has projected additional requirement of funds of Rs. 5 crore for ERNET during 2003-04.

42. The Committee notes that Educational Research Network(ERNET) will strengthen national capabilities in the area of computer networking and data communication, to make it competitive by World standard and to carry the benefits to nationwide academic and research community, industry and variety of users. It learns that DIT has signed MoU with University Grants Commission(UGC). Now UGC has to provide connectivity both V-SAT connectivity and internal fibre lay out connectivity. More than a hundred Universities would be taken up during the course of this year. An MoU has also been signed with All India Council for Technical Education(AICTE) and they have to connect 150 out of 1200 engineering colleges.

43. However, the Committee finds that the project was approved by the Cabinet Committee on Economic Affairs (CCEA) on 31st May, 2002 and the Department was sanctioned a grant of Rs.55 crore for the capital equipment to install servers and the backbone leased lines. Out of the same, Rs. 33.9 crore have been released but the remaining amount of Rs.21.10 crore is withheld. The Committee desires that the spill over amount of Rs. 21.10 crore should be released urgently to enable the ERNET to complete the project expeditiously.

44. The Committee is concerned to note that in the absence of additional allocation, an amount of Rs. 11 crore as part of spill-over balance of Rs. 21.10 crore is being released to ERNET out of the budget allocation for Vidya Vahini and Gyan Vahini Programmes. The

Committee views that such transfer of fund from one scheme to another will definitely affect the implementation of one of the projects and therefore should be avoided.

Vidya Vahini and Gyan Vahini Project

45. The Committee has been informed that for the Tenth Five Year Plan the Department of Information Technology(DoIT) has formulated two specific programme ‘Vidya Vahini and Gyan Vahini programmes’ to integrate internet and intranet tools and computer aided techniques into the learning environment. This programme focuses on providing Information and Communication Technology(ICT) infrastructure, training of the teachers to use ICT for imparting education and providing different learning resources which include related educational tools, course curriculum and other learning materials, e-journals. The pilot project of Vidya Vahini was initiated in the 7 districts. DoIT proposed to extend Vidya Vahini pilot project to at least one district in every State. Similarly, at least one university/higher learning institution in each State are proposed to be covered in the pilot phase of Gyan Vahini programme. Thereafter, replication of the programmes to rest of the States may be taken by the State Governments.

46. As regards, the funds proposed to implement these programmes, it has been informed that the Department of IT had proposed Rs. 60 crore for the year 2003-04, they have got Rs. 5 crore only. The Department has stated that meagre allocation of Rs. 5 crore will not allow them to extend the Vidya Vahini project to one district in each State. This amount will thus be utilised to nurture the Vidya Vahini programme already undertaken and to develop and create content, portal management and training of teachers. Further, no project can be undertaken under Gyan Vahini programme.

47. In a representation submitted to the Committee, it has been stated that a pilot project is being taken in 140 schools in 7 districts in the country viz., South 24-Parganas (West Bengal), Kuppam (Andhra Pradesh), Lucknow (Uttar Pradesh), Gandhinagar (Gujarat), Allahabad (Uttar Pradesh), Hazaribagh (Jharkhand) and Parlivaijnath (Maharashtra). In each of the districts, 20 Government/Government aided schools have been selected in consultation with the State Government. The equipments have been installed in all the selected schools at South 24-Parganas, Kuppam, Lucknow, Gandhinagar and Allahabad. The installation of the equipments has also been

completed at 17 schools in Parliavajinath and Hazaribagh and similar number of schools in Hazaribagh. The internet and intranet has been activated at each of these schools. Further a part of the course curriculum content has also been installed on the computers in each of these schools. The internet connectivity will be used to upgrade the course of curriculum materials or in fresh installation of software at the schools. The entire Pilot Project has stated to have been implemented by ERNET at an investment of Rs.15 crores.

48. It has been represented that the equipment worth Rs. 10 lakhs provided at each of the school & training centre, are covered under maintenance warranty for 2 years. The recurring cost of Internet connectivity will be about Rs. 1.5 lakh per annum. For the first year, this cost has to be borne by the DoIT. However, due to poor financial position of the States, they may not be in a position to maintain the equipment and bear the recurring cost of Internet connectivity after the completion of the pilot project. As a result, there will be non-utilisation of facilities in such an important social subject like education due to non-availability of funds to maintain the systems.

49. The Committee notes that the Department of Information Technology had proposed an outlay of Rs. 60 Crore for “Vidya Vahini and Gyan Vahini” Project for the year 2003-04 to extend Vidhya Vahini project to at least one district in each State. Similarly, at least, one University/higher learning Institution in each State was proposed to be covered by the pilot programme of Gyan Vahini. However, due to the reduction in outlay from Rs. 60 crore to merely Rs. 5 crore by the Planning Commission, the Department has contended that Vidya Vahini project cannot be extended to one district in each State. Similarly Gyan Vahini project cannot be extended to one University/higher learning institution in each State. As stated, allocation of Rs. 5 crore will be utilised to nurture the Vidya Vahini programme already undertaken and to develop and create content, portal management and training of teachers. This scheme envisaged that for the first year the recurring cost of internet connectivity will be about Rs. 1.5 lakh per annum and will be borne by the DoIT and thereafter the concerned States will be required to maintain them. However, it has been represented to the Committee that with the current financial position of the States, it may not be possible for them to maintain the equipment and bear the recurring cost of internet connectivity after the completion of the pilot project. This will result in non-utilisation of facilities created at enormous cost and the project of computer education will suffer. The

Committee, therefore, strongly recommends that Department of Information Technology should nurture the schools covered under the pilot project and provide for recurring cost for a longer period of say 2-3 years for internet connectivity and maintenance. By that time the State Government may find resources to maintain the projects

Electronic Governance (E-Governance)

50. The Committee has been informed that E-Governance is one of the areas where the Department will have to sacrifice various schemes in view of the reduced allocation by the Planning Commission. This is stated to be the area where DIT wanted to have substantial step-up over the previous years' programmes of Rs. 40 crore. The Department of Information Technology had proposed the annual plan allocation of Rs. 100 crore for 2003-04, however the Department has been allocated Rs. 40.50 crore only.

51. It has been observed that during 2002-03, the Department has been able to utilize Rs. 21.25 crore (upto Feb.2003), out of the allocation of Rs.41.17 crore on E Governance. When asked about the reasons for the shortfalls, in a subsequent note, it has been stated that under e-Governance Programme, the following projects are under process for release of funds during the current year:-

- i) Replication of following successful E-Governance projects:
 - Land Records (12 States)
 - Registration (5 States)
 - Transport (6 States)

The total estimated outlay of the above projects is stated to be Rs. 31.00 Crore, out of which Rs. 15.50 Crore is proposed to be released during the current financial year.

- ii) Upgradation of MAHANET (VSAT network of Govt. of Maharashtra). The project has already been approved at an outlay of Rs. 14.97 Crore. The request for release of balance amount of Rs. 7.47 Crore is under process.
- iii) The project regarding E-Governance project in Rashtrapati Bhawan has been approved at an outlay of Rs. 4.86 Crore. The request for release of balance amount of Rs. 2.43 Crore is under process.

- iv) Standing Finance Committee Note regarding Computerization of e-Governance in Govt. of Uttar Pradesh at an outlay of Rs. 7.25 Crore has already been submitted. The requirement of funds during the current year is Rs. 1.78 Crore.

52. It has further been stated that an amount of Rs. 21.46 Crore has been spent under the above programme and with the approval of above mentioned projects, it is expected that the total funds allocated for e-Governance programme will be fully utilized.

53. Asked to state the purpose for projecting additional requirement of Rs. 60 crore for the year 2003-04, it has been stated that taking into account the momentum gathered in the current financial year (2003-04) and the response of the State Governments received for different programmes, it is expected that the total expenditure on this account would be in the region of Rs.100 crore and hence the figure of Rs.60 crore has been indicated as additional requirement.

54. The Committee is constrained to note that e-Governance is also one of the areas where the Department will have to sacrifice various schemes in view of the reduced allocation by the Planning Commission. The annual plan allocation for 2003-04 proposed by DIT is stated to be Rs. 100 crore, however, the Department has been allocated Rs. 40.50 crore only. The Department intended to initiate institutional mechanisms to facilitate greater utilization of Information Technology as enabling tool for efficiency and effective in Government with the proposed outlay of Rs.100 crore. The Committee notes that taking into account the momentum gathered for the scheme and also response of the State Governments, The Department had proposed an outlay of Rs.100 crore. The Committee desires that a step up in the allocation should be made for e-Governance at the RE stage. The importance of various IT activities in e-Governance domain is the demand of the time.

55. The Committee notes that the Department has not been able to utilize the allocation of Rs.41.17 crore for 2002-03 on e-Governance and the utilization remained at the level of Rs. 21.25 crore (upto Feb. 2003). The reason is stated to be that for certain projects viz. Land Records (12 States), Registration (5 States), Transport (6 States), Upgradation of MAHANET (VSAT network of Govt. of Maharashtra), the project regarding e-Governance project in Rashtrapati Bhawan and Standing Finance Committee Note regarding

Computerization of e-Governance in Govt. of Uttar Pradesh approval has yet to be obtained and the Department expects full utilization of the allocated amount after they get the approval. The Committee is not convinced of the reasoning for under-utilisation of funds. It urges the Department of Information Technology to strengthen its monitoring mechanism with a view to take timely corrective steps so that implementation of the projects is not hindered for avoidable reasons.

Hardware Development

56. It has been mentioned and as this Committee is of the view that if Indian manufacturing companies have to compete globally, there is a need to have a clear and comprehensive national policy for hardware manufacturing industry. The basic philosophy to induce manufacturing of electronics and IT products in India should be to provide world class environment. In this context the Committee desired to know whether Government has formulated any policy for hardware manufacturing industry. In reply, the witness submitted that IT task force of the Prime Minister had given three Reports -- first on software, the second on hardware and the third is a mixture in the sense that it is about the overall structure. The first software Report had 107 recommendations and a large part of it has been accepted and therefore, the software policy is in place. On IT hardware policy, there have been discussions and they are in the process of formulating a policy because it had gone up to the Cabinet, up to CCA. Then it was discussed with the Industrial Promotion Ministry as well as the Labour Ministry.

57. The witness further added that the electronic hardware policy is basically for export purposes. This has also relation with EXIM policy. This is for the export of hardware and units which manufacture hardware items. This is a policy included in the fiscal structure. For the time being, it is part of the policy. They are stated to be working in two directions. One is export and the second is part of the Electronic Hardware Technology Parks (EHDP) units. EHDP can be a part and can be a single unit also. It was subsequently assured that within a month there will be a policy on hardware on paper.

58. During examination of Demands for Grants (2002-03), the Committee was apprised that the hardware industry has the potential to provide direct employment for 1.6 million and indirect employment for 2.3 million as compared to 2.2 million employment capacity of the software

export. As the constraints viz. inverted tariff structure, non-availability of inputs, shifting Government policy and poor infrastructure etc. were identified, the Committee suggested that remedial steps should immediately be taken. In this respect, the Committee enquired about the measures taken so far in this matter. The witness submitted that the Department of IT had placed two main recommendations for the budget for 2003-04. One is fiscal regime which they perceive includes EHDP and it is most important in their decisions to invest. Then capital goods which for hardware and hardware industry as a whole is firstly capital intensive and secondly its gestation period is at least eighteen months to twenty months. The output of capital ratio is at least 1.5 to 2 unlike software which can be 10, 15 and 20. It was suggested last year that capital goods should be at zero duty. Secondly they recommended that to bring the industry on a lower taxation level, 17 percent overall taxation should be made. Unfortunately, on software side some of the things actually changed but on the hardware side, the constraints remained as they were.

59. The Committee drew the attention to the projection for the Tenth five year plan of hardware production of Rs.69,000 crore by the year 2006-07, a Cumulative Annual Growth Rate(CAGR) of about 15 percent. These projections are stated to be based on a CAGR 18 percent for Consumer Electronics, 5 percent for Industrial Electronics, 20 percent for Computer Hardware, 11 percent for Communication, 8 percent for Strategic electronics and 15 percent for Components. The Committee desired to know that how far the target growth for CAGR 20 percent for Computer Hardware is achievable. To this, the witness stated that the particular target of Rs. 69,000 crore they have as a kind of realistic scenario. In an optimistic scenario, there is another target which is Rs. 90,000 crore, which roughly translates to between 14 and 18 billion dollars compared to today's about 7 and ½ billion dollars which they have achieved in the present year. To a specific query, it was stated that these targets are achievable provided certain constraints as mentioned above are removed.

60. The Committee further wanted to know about the projection made by the Department for the development of hardware. In reply, the witness informed that they had projected Rs. 92 crore for Software Technology Parks of India (STPI) & EHTP, however only Rs. 6 crore have been allocated. The Department has asked for additional requirement of Rs. 8 crore.

61. To a specific query, it was clarified that out of Rs. 92 crore, an amount of the order of Rs. 72 crore would have been spent on EHTP. It was planned to establish centers or parks of excellence for hardware which are excellent in infrastructure. It is because all over the country, it may not be possible to provide excellent infrastructure which is out of their control as it is in the States' control. But in smaller areas they could provide that. But due to reduced allocation, they will not be able to take up the project.

62. The Committee then asked whether the Department of Information Technology has taken steps to encourage the domestic market to produce computers so that small scale hardware industry can flourish and they can compete with the Multinationals. It was pointed out that wherever computers are made, they are using intel chips and their technology. The Committee then drew the attention of the Department to one of the Circulars of the Electronic Department issued in 1987, wherein it was stated that if any Government organization buys a computer, they will not go by the brand name and will go by the configuration of the computer. It enquired whether that circular is being followed by the Ministries/Departments. Reacting to this, the Secretary, DIT stated that wherever any individual case is brought to their notice, they take the action accordingly.

63. In this context, the Committee reminded that at the time when that particular Circular was issued, the IT network and its applicability was not so wide. Now apart from computer network, servers and other networking products are also needed. To a suggestion of the Committee that a notification should be issued that wherever computers and other networking products are purchased by any Department, there should be benchmark of competence and it should be done depending upon the configuration of the computer and not the brand name, the witness clarified that the notification issued earlier covered only PCs and people have been flouting this and going for servers of the branded companies. Now it has been decided to include servers, networking products and ISO 9000 companies in the original Circular of the Department of Expenditure.

64. The Committee has observed that for the Tenth Plan, the Department of Information Technology had proposed an outlay for "Infrastructure Development" as shown below, however, the Planning Commission has drastically curtailed the proposed outlay. The approved outlay is also shown against each of the schemes:-

(Rs. in crore)

| Sl.No. | Scheme | Tenth Plan Outlay proposed by Department of Information Technology | Tenth Plan Outlay approved by Planning Commission |
|---------------|---------------|---|--|
| 1. | STQC | 321.00 | 133.00 |
| 2. | STPI & EHTP | 800.00 | 50.00 |
| 3. | e-Governance | 1000.00 | 271.00 |

65. When asked about the major schemes, which the Department would have to sacrifice under the abovementioned sub-heads because of the drastic reduction in Tenth Plan Outlay approved by the Planning Commission, it has been stated that with the funds of Rs.133 crore allocated, out of proposed outlay of Rs.321 crore, STQC would be able to meet the minimum needs of the ongoing activities. Due to drastic cut in 10th Five Year Plan outlay for STQC programme expansion of STQC network might have to be restricted to only one or two Centres. Also many of the new schemes such as creation of Test & Certification facilities in socially relevant and leading technological areas, Testing & Qualification facilities for Blue Tooth Technology product, establishing of Calibration Infrastructure in High Tech and High Accuracy areas, Project on Centre for Excellence in Standard Technology, etc., would have to be sacrificed and the upgradation of laboratories in Testing & Calibration areas might have to be restricted.

66. It has further been stated that certain critical areas in IT like Cyber Security Assurance Framework, Software Testing and Quality Engineering would have to be pursued and additional funds for this have to be found out either out of other Budget Heads of DIT or additional grants.

67. As regards sacrificing schemes of STPI in view of the reduced outlay of Rs.50 crore out of the proposed outlay of Rs.800 crore, it has been stated that that amount can be utilized by Software Technology Parks of India (STPI) partially on the enhancement of STPI Infrastructure and partially on Value added/New Services in a limited way and in absence of additional support, they may not be able to take up the other projects.

68. As regards e-Governance, it has been informed that the Government intended to implement a comprehensive programme to accelerate e-Governance at all level of the Government

to improve efficiency, transparency and accountability at the Government – Citizen interface and hence a modest allocation of Rs. 1000 Crore was proposed in order to prepare the ground for implementation of a comprehensive programme. Such a programme would need a lead time and a series of preparatory actions. However the current provision of Rs.271 Crore would not be adequate to even lay the basic foundation for launching the major e-Governance Programme.

69. It has further been stated that the Department of Information Technology jointly with the Department of Administrative Reforms & Public Grievances (DAR&PG) have drafted a scheme “Central Assistance for E-Governance Acceleration”. The salient features of the scheme are that it combines both the National E-Governance Initiative (NEGI) and the Centrally Sponsored Scheme (CSS) provisions. The scheme covers the components viz. Core E-Projects, Core Infrastructure, Integrated Services Projects, Support Infrastructure, Core Policies, Human Resource Development/Training, Technical Assistance, Awareness & Assessment, Organisational Structures (NEGC, NISG, State EGCs, EG Standards Institutions, NIC) and R&D. The total expenditure envisaged in the draft scheme is Rs. 12,410 crore, out of which DIT support would be Rs.2740 crore. The draft scheme was stated to be deliberated in the two day workshop which was held on 5 & 6th February, 2003 wherein 22 States(Planning and IT Secretaries) and Key Central Government Ministries participated. The recommendations of the workshop have been finalized and revised scheme is proposed to be placed before the Empowered Sub-Committee of the National Development Council on Government reforms with special reference to e-Governance.

70. **The Committee is surprised to note that till date there is no clear and comprehensive national policy for hardware manufacturing industry though its urgent need has been felt. The Committee learns that the IT task force of the Prime Minister gave three Reports, out of which first was on software, the second was on hardware and the third was about the overall structure. Though the software policy is in place, on IT hardware policy, there have been discussions and the process is on to formulate the same. In view of the fact that Hardware Industry has the potential to provide direct employment for 1.6 million and indirect employment of 2.3 million as compared to 2.2 million employment capacity of the software sector and that hardware industry is highly diversified, competitive and capital intensive, the Committee recommends that a policy for hardware manufacture industry**

should urgently be finalised so that the hardware industry get the focused attention and the vast potential is fully exploited.

71. The Committee regrets to note that though the Department has tried to remove the constraints faced by the hardware industry viz. inverted tariff structure, non-availability of inputs, shifting Government policy and poor infrastructure etc. yet the bottlenecks still exist. The Committee has been apprised of the Tenth Five Year Plan projections for hardware production of Rs. 69,000 crore in the realistic scenario and of Rs. 90,000 crore in the optimistic scenario, for the year 2006-07. The Committee is constrained to observe that though the targetted growth of CAGR 20 percent for Computer Hardware is achievable, yet the various constraints faced by the Hardware Industry may make the task difficult. The Committee, therefore, impresses upon the Department to pursue the matter at the highest level so that constraints/bottlenecks are removed at the earliest and Indian Hardware Industry captures the initiatives well in time.

72. The Committee is concerned to note that out of the projection of Rs. 92 crore for STPI & Electronic Hardware Technology Parks(EHTP), the Department has got only Rs. 6 crore. The Department will not be able to establish parks of excellence for hardware which will provide the latest infrastructure. Despite the fact that Indian Hardware Industry has been under pressure for its survival, Government is not coming forward to help the Department by providing sufficient funds. In order to give added significance to the Hardware Industry, the Committee earnestly desires that Department should be given adequate funds at the RE stage.

73. The Committee finds that one of the Circulars of the Electronic Department issued in 1987 stating that if any Government organization buys a computer, they will not go by the brand name but will go by the configuration of the computer needs revision. The Circular covered only PCs. Organisations have been flouting this and going for servers of the branded companies. In order to encourage the domestic market to produce computers so that small scale hardware industry can flourish and they can compete with the Multinationals, the Committee recommends that as assured by the Department of IT, a revised notification by including servers, networking products and ISO 9000 companies will be issued.

National Informatics Centre (NIC)

74. NIC is known to be providing a variety of services to both Central and State Governments Departments viz. Internet and E-mail access to almost 1,00,000 users, designing, developing and maintaining more than 1500 websites, extending operational support to Central Government Departments, State Governments and District Administrations in the country. In addition to this, NIC has been involved in the development of host of applications ranging from office automation project to G2G applications. Further, the cost of Internet access and E-mail access, websites development and support to the Ministries itself if taken at concessional rate from the open market would be more than Rs.200 Crore which is more than the total budget of NIC.

75. The Committee asked whether the role of NIC in recent years has been curtailed or minimized on account of the configuration of various institutions providing similar services. In reply, it has been stated that the role of NIC, to a large extent, has been a continuous process in the past. But a number of other organisations and agencies have emerged and the growth of the private sector has taken place in the decade of the nineties. Today, many of them are also moving in the areas related to e-Governance. As against the earlier situation where there was only one player in the area of e-Governance, today private players have also come into that field.

76. To another query, as to the reasons why the NIC has failed to keep pace with all those developments, the witness submitted that there are several reasons. One is to provide certain infrastructure. That is to provide the network and NICNET was the network which was being used by the Government for its internet requirements. Even today a large part of the networking reforms of the Government and Internet connectivity is provided by the National Informatics Centre. In the 1980 when NIC established the NICNET and moved to all the States connecting district headquarters, at that point of time there was no other network. The spread of telecom infrastructure was minimal and therefore this was the principle and only network available to the Government. But today a situation has come where with the growth of all private suppliers, different types of arrangements are followed.

77. The Committee asked why NIC has not been strengthened and upgraded as there is no dearth of talented people and necessary information and infrastructure are available throughout the

country. In reply, it has been clarified that as far as the infrastructure is concerned, the fact is that with the availability of other providers, the Government has to make a choice. The other role of NIC is to provide technical support; software development; and so on. As far as technology is concerned, there is no difficulty for spreading NICNET; for growing it; and building it to a much larger level in terms of higher bandwidth and higher capability etc. Right now it is largely a VSAT based network, but over a period of time, it will also have a mix of both Fibre Optics and VSAT. There is no difficulty in terms of the capabilities or competencies, provided sufficient amount of money is given for enhancing NICNET to grow both horizontally, as well as in terms of capacity. But, when the options are there today, the choice is either to support NICNET by providing the capital for NICNET to grow or use other service providers who have invested their capital and created the capacities.

78. As regards the funds provided for 2003-2004, it has been stated that Department of Information Technology proposed an outlay of Rs.226 crore and got Rs.181 crore only. When asked whether the amount provided in the budget is sufficient, it has been stated that Rs. 20 crore of additional requirement has been asked for during the year 2003-04. The additional money when available will be spent on replacement of obsolete hardware and software which is very high for IT area and upgradation of NICNET to meet gradually increasing requirement of Central Government Departments and State Governments.

79. During the discussion of the Annual Plan (2003-2004) proposals, the Secretary, Planning Commission observed that NIC should charge its users for providing its services. The Secretary, IT has however informed that an exercise in this regard has been initiated. He however opined that while the Ministries/Departments would be able to make payments to NIC, but in view of the poor financial health many States may not be able to do so. In a written reply later on furnished to the Committee, it has been informed that the service to NIC users in the Central Government, State Government and District Administrations is provided free of cost for all Government e-governance applications. In addition, NIC is providing NICNET connectivity to number of PSU's and autonomous bodies and they are fully charged for the use of NICNET.

80. The Committee notes that National Informatics Centre (NIC) has been providing a variety of services to Central and State Governments Departments viz. Internet and E-mail

access to almost 1,00,000 users, designing, developing and maintaining more than 1500 websites, extending operational support to Central Government Departments, State Governments and District Administrations in the country. In addition to this, NIC has been involved in development of host of applications ranging from office automation project to G2G applications. The cost of Internet access and E-mail access, websites development and support to the Ministries itself if taken at concessional rate from the open market would be more than Rs.200 Crore which is more than the total budget of NIC.

81. The Committee further notes that NICNET when established in the year 1980 was the only network available but now the growth of the private sector is taking place. Today Government has the option to support the NICNET by providing adequate funds to help it grow or use the service of the private parties who have created capacities by making huge investments. As it seems that there is no difficulty in spreading NICNET; for building it to a much larger level in terms of higher bandwidth and higher capability etc. or in terms of the capabilities or competencies, the Committee desires that sufficient amount should be provided for enhancing NICNET so that it grow both horizontally, as well as in terms of capacity with the private sector. The Department's requirement of additional funds of Rs. 20 crore which NIC need for replacement of obsolete hardware and software should be considered favourably.

82. The Committee notes that the service to NIC users for the Central Government, State Government and District Administrations is provided free of cost to all Government e-governance applications. The Secretary, Planning Commission has observed that NIC should charge its users for providing its services and an exercise in this regard has been initiated by the Department. However, the Committee is of the view that if NIC starts charging for its services, many of the State Governments which are in financial crunch will find it difficult to pay and in turn may curtail use of Electronic Governance which will not be in the overall interest of spread of information technology.

Semi-Conductors Limited (SCL)

83. During discussion on Demands for Grants (2003-04) with the Planning Commission CMD, SCL had stated that his Company is in a position to supply multi-application smart cards and the Government should consider placing of orders on SCL for at least 30% of the requirements. In this context, the Committee asked about the decision taken by the Government. In reply, it has been stated that the Department of Information Technology (DIT) has been considering to recommend to the Government Departments/agencies to make a proviso in the tender documents for offering to SCL, upto 35% of the orders of smart cards at the lowest bid price. In this direction, the DIT has recently in a communication to the Ministry of Home Affairs brought out that in line with the initiatives taken by Governments of other countries, SCL can handle the Multipurpose National Identity Card (MNIC) project of the Government based on Smart Card technology and, if required, upgrade its infrastructure.

84. During evidence, the Committee asked about the present status in this regard. In reply, it has been stated that SCL could not get the said tender. The tender has been awarded to Indian Telephone Industries (ITI). It was added that ITI and HTL, still enjoy 30 percent purchase preference. Secretary, DIT supplemented that basically there are high security applications where the State may not want to have those applications to be given out to private parties. In that particular situation at least for National Identity Cards or citizens applications, SCL should play an important role.

85. To a specific query that what is the present source of procurement of smart card required by the Government, it has been replied that currently, various Department/agencies of the Government meet their respective requirement of smart cards through open bid systems and the parties offering the lowest prices are awarded the contract.

86. CMD, SCL further informed during discussion on Budget proposal 2003-04 that while the water fabrication facility at SCL had been commissioned in 1997 and commercial production started in 1998, augmentation of various R&D and CAD facilities which were a part of the project, were yet to be completed for which a spill-over outlay of Rs.48.27 crore have been proposed for

2003-2004. It was observed that required funds must be provided to the Company during 2003-2004 to complete the approved programme of reconstruction.

87. In a written note, furnished to the Committee, it has been informed that the SCL was planning to undertake the remaining augmentations during 2003-04 with a view to address certain emerging business opportunities. Accordingly, request was made to release the remaining VLSI project funds amounting to Rs.48.27 crore (Rs.41.27 crore during 2003-04 and Rs.7 crore during 2004-05). However, Rs.6 crore only has been allocated during 2003-04. In order to enable the company to take up the augmentations in totality as envisaged, the additional funds required would be sought under supplementary grant.

88. **The Committee notes Semi-Conductors Complex Limited(SCL) is in a position to supply multi-application smart cards and Department of Information Technology (DIT) is considering to recommend to the Government Departments/agencies to make a proviso in the tender documents for offering to SCL, upto 35% of the orders of smart cards at the lowest bid price. Also the Department is of the view that in line with the initiatives taken by Governments of other countries, SCL can handle the Multipurpose National Identity Card (MNIC) project of the Government based on Smart Card technology and, if required, upgrade its infrastructure. The Committee is of the opinion that being Public Sector Undertaking, Semi-Conductors Complex Limited should be provided all assistance in procurement of orders and in this context their proposals merit favourable consideration.**

89. **The Committee, however, is unhappy to learn that SCL could not get the tender mentioned above and that particular tender has been awarded to ITI. HTL, is still surprisingly enjoying 30 percent purchase preference granted to it when it was a public sector company. The Committee desires that preferential treatment to HTL after privatization be withdrawn forthwith. The Committee fully concur with the views of the Department that basically these are high security applications where the State may not want to have those applications to be given out to private parties. In that particular situation at least for National Identity Cards or citizens applications, SCL should play an important role.**

90. The Committee notes that a spill over outlay of Rs.48.27 crore have been proposed for 2003-2004 to complete the augmentation of various R&D and CAD facilities at SCL. However, Rs.6 crore only has been allocated for the year 2003-04. The Committee desires that In order to enable the company to take up the augmentations in totality as envisaged, the additional funds required would be sought under supplementary grant.

Human Resource Development

Special Manpower for ASIC Design

91. The Department of Information Technology proposed an allocation of Rs.125 crore during 2003-2004 for special Manpower project. However, the Planning Commission approved only Rs.3.5 crore. When asked about the reasons for proposing higher allocation for the year 2003-2004, when during 2002-03 the proposed outlay was Rs. 22 crore, it has been stated that the Department of Information Technology attaches a lot of importance to the VLSI design manpower. They are working on the basis of Kohli Committee's Report. The Report entitled "Promoting Microelectronics Education: The Indian Imperative" has been prepared by M/s Tata Consultancy Services(TCS) and IIT, Mumbai. The report says that "Information Technology" is one of the prime drivers of economic growth. To computerise and digitize all sectors of the economy, a high level of penetration of digital devices is important. Domestic design and production of these digital devices will lower prices, and spur demand and productivity. Indigenous development of digital components for such devices would require skills in hardware design engineering and embedded software development. Towards this end, India needs to increase the availability of skilled human resources in the area of microelectronics. This area is stated to be so important that they can provide the manpower not just for the economy but for the global economy also. Further, intellectual property which will control the hardware process can also be created.

92. To realise this aim DIT has stated to have projected an outlay of Rs.125 crore. DIT is already implementing a Special Manpower Development Programmes involving 7 Resource Centres(RCs) and 12 Participating Institutions(PIs) including RECs, Engineering colleges and Universities to generate manpower in the area of VLSI Design and related software at B. Tech/M.Tech level. With a view to further increase the availability of trained manpower in this area, DIT had proposed to initiate Phase-II of this programme as a part of its proposals to the Planning Commission for the Annual Plan 2003-04. The Kohli Report has projected a need of 4000

to 5000 Microelectronics professionals per year at the level of M.Tech(Microelectronics). As per AICTE norms, an M.Tech batch can have a maximum of 25 students. Taking an average of 20 students per batch would imply initiation of the M.Tech programme at 250 centres across the country for a targetted output of 5000 M.Tech(Microelectronics) per year. A preliminary estimate indicates an amount of about Rs. 1.5 crores per center covering computer hardware and software, laboratories infrastructure, faculty salaries, students fellowship etc. over a 5 year period. This would translate a budgetary requirement of Rs.375 crores for the programme. An amount of Rs. 125 crores would therefore be required in 2003-04 towards hardware, software, laboratory infrastructure and recurring expenditure for one year. Since the Planning Commission has approved only Rs.3.50 crores, then after catering to the needs of the ongoing projects covering 7 RCs and 12 PIs during 2003-04, the balance left would be around Rs. 2.50 crore which would enable initiation of the programme only at 5 new centers during 2003-04.

93. During evidence, it was added that even if funds could be made available for at least 44 institutions that have been identified by S.P. Kohli's Committee, they could start the VLSI programmes in those 44 institutions, if not 250 and for that they would require Rs.65 to 70 crores.

94. Asked about the reasons for under-utilisation of funds during 2002-2003, when the Department was allocated Rs.2 crore for the scheme and it could expend Rs.61 lakh only, the DoIT has stated that some of the implementing institutions had not submitted the utilisation certificates and other requisite details to enable processing the cases for release of funds.

95. **The Committee notes that the Department had projected Rs.125 crore during 2003-2004 for VLSI design manpower, which is much higher than the amount of Rs. 22 crore projected during 2002-03. The reason for proposing higher allocation is stated to be the importance that the Department attaches to the scheme. In pursuance of the recommendations made by the Kohli Committee in its Report entitled "Promoting Microelectronics Education: The Indian Imperative" has projected a need of 4000 to 5000 Microelectronics professionals per year at the level of M.Tech(Microelectronics). The DoIT has contended that as per AICTE norms, an M.Tech batch can have a maximum of 25 students. Taking an average of 20 students per batch would imply initiation of the M.Tech programme at 250 centres across the country for a targetted output of 5000**

M.Tech(Microelectronics) per year. A preliminary estimate indicates an amount of about Rs. 1.5 crores per center covering computer hardware and software, laboratories infrastructure, faculty salaries, students fellowship etc. over a 5 year period. This would translate a budgetary requirement of Rs.375 crores for the programme. An amount of Rs. 125 crores was projected in 2003-04 proposals towards hardware, software, laboratory infrastructure and recurring expenditure for one year. It is stated that in view of the reduced allocation of Rs. 3.50 crore, after catering to the needs of the ongoing projects covering 7 RCs and 12 PIs during 2003-04, the balance left would be around Rs. 2.50 crore which would enable initiation of the programme only at 5 new centers during 2003-04.

96. Sharing the view of Department, the Committee desires that funds should be made available to them for at least 44 institutions that have been identified by S.P. Kohli Committee so that VLSI programmes can be started in those 44 institutions, if not 250 and for that they would require Rs.65 to 70 crores.

97. The Committee notes that during 2002-03, the Department could utilize Rs. 61 lakh only against the allocation of Rs.2 crore for the scheme. The reason for the same viz. some of the implementing institutions have not submitted the utilisation certificates and other requisite details to enable processing the cases for release of funds does not convince the Committee. The Committee feels that had the institutions been pursued vigorously, the funds would have been released in time. The Committee desires that adequate measures should be taken in advance so that the meagre funds allocated for the scheme are fully utilised.

Technology Development for Indian Languages(TDIL)

98. The focus areas of TDIL include translation systems such as Machine Aided Translation system (MAT), parallel corpora which is a requisite for developing machine translation systems, lexware, multilingual dictionaries, wordnet, speech databases and so on. They have aim to develop speech to speech translation system.They are also making efforts for localisation of software as well as content in Indian languages and standardisation of UNICODE.

99. The Committee desired to know about the requirements of the Department to properly conduct the important development programme called Technology Development for Indian

Languages. The witness submitted that it is for the first time the World has recognised Indian languages through this means. Secondly in India there is an enthusiasm and confidence that in this area Indian are moving ahead.

100. The Committee has been informed that for this scheme, the Department asked for Rs. 11 crore for 2003-04, however they have been allocated Rs. 6 crore only. When asked about the areas which they will have to sacrifice in view of the reduced allocation, it has been informed that in terms of developing the parallel corpora, it is actually a very intensive task. So, they would like to start a large number of centres for parallel corpora which will help in machine translations and Optical Character Recognition (OCR) development which they will have to keep at the same level as it is today. Further in the matter of optical character recognition they have focused only on six languages. It was added that if they would have more money they can start work on other languages also. Other area that would get particularly effected is stated to be the speech recognition technology, which is quite capital intensive and need of the hour.

101. The Committee has observed from the material furnished to the Committee that on Technology Development Council Project, the Department could not fully utilise the funds during the last two years. During 2001-02 and 2002-03, out of the allocated funds of Rs.5 crore, the Department could utilise Rs. 2.96 crore and Rs. 2.00 crore respectively.

102. **The Committee appreciates the efforts made by the Department of IT in Technology Development for Indian Languages project. The Committee feels that Rs. 6 crore allocated to the Department against the proposed funds of Rs. 12.50 crore for TDIL would remain insufficient as TDIL has to perform substantial amount of work. The Committee, therefore, desires that more funds should be provided to the Department at RE stage to help TDIL to realise the objectives.**

103. **The Committee further notes that the Department was not able to fully utilise the funds during the last two years. During 2001-02 and 2002-03, out of the allocated funds of Rs.5 crore each year, the Department could utilise Rs. 2.96 crore and Rs. 2.00 crore (Upto Feb. 2003)respectively. The Committee desires that the Department should take utmost care so that the funds allocated to it are fully utilised.**

New Delhi
3 April, 2002
13 Chaitra, 1925 (Saka)



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