

R.K. Com/WG

by NEST & H?

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Copy of Telex message received from Prof. S. Dhawan, Secretary, Department of Space conveying his views and comments for the Working Group on Science & Technology.

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Four of the Working Group. Many of the suggestions made in the Draft Report of the Working Group have been made many times before in various forums. If these recommendations have not been translated into operational instruments for the achievement of the objects of policy, it is perhaps because the policy instruments have not been precisely identified. This needs to be done. My note will try to set down some details of the instruments and administrative measures that appear to be necessary.

1-A. Linkages between Industries-Academic Institutions and Industries-National Laboratories:

This can be promoted significantly through a detailed examination of the administration of Section 35 of the Income Tax Act. In particular, types of expenditure and the approved field of R&D qualifying for the 125% and 133% rebate rates need more logical definition if the desired effects are to be realised.

1-B. The present Rules regarding consultancy for industries by academic institutions is excessively restrictive and needs to be made more flexible to permit industry to utilise expertise of individuals in academic institutions as consultants.

2-A. Linkages between National Scientific Agencies/Laboratories with academic institutions:

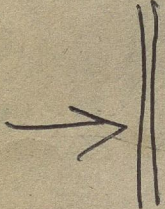
This needs to be strengthened through, among other measures, a mandatory requirement that, say, 5% of the R&D budget of Government agencies, particularly scientific agencies and public sector enterprise should be spent in the academic sector and this target should be realised by 1985. Simultaneously the absorptive capacity of selected academic institutions need to be raised by, among other measures, devamping of their rules regarding the administration of such sponsored research.

2-B. There is no significant administrative problem in the temporary exchange of personnel between academic institutions and government laboratories located in the same city. The necessary managerial arrangements should be worked out between the institutions under a policy directive to the scientific agencies and academic institutions.

2-C. All scientific personnel in scientific agencies and public sector enterprises should be permitted to apply any number of times to any organisations within the country provided they inform their employing department/agency of their action. The present rule is not conducive to the free movement of personnel and in any case is more often observed in the breach than otherwise.

3. Linkages between Planning Commission, user ministries and S & T agencies:

The Five Year Plan details, the type and qualities of industrial outputs and the types of services (e.g. medical) that are planned for different years in the Plan frame. The S&T Plan details, the budgetary inputs, and the areas of R&D/S&T activity in the same time-frame. This is drawn up on the basis of needs perceived by the agencies supplying technology. The crucial link between the two Plans that is missing is a technology demand plan or demand profile as an adjunct to the end-product plan or profile contained in the socio-economic Five Year Plan.



The technology demand profile needs to be drawn up by the Planning Commission for five ten-year periods in conjunction with the 'user ministries', DGTD and the S&T agencies at least two years before the drawing-up of S&T sector Five Year Plans. This profile must state which technologies are sought to be imported and which developed indigenously. Once accepted, "Reappropriation" from the indigenous to the imported list must be contingent upon Planning Commission, DGTD and S&T agency approval.

3-B. Administrative approval for import of technology:

The present procedure for the administrative approval for the import of technology gives formal notice to the domestic S&T sector of the existence of an industrial demand for a technology late, often only at the licensing committee stage. This is far too late in the technology development cycle. Furthermore, the present procedure puts the onus on the domestic S&T agencies to demonstrate to the technology import approval authority that import is not required. Industries and user ministries do their technology shopping first abroad, fix a collaborator and then come to the approval authority where they confront the domestic S&T supply system. With a virtual fait-accompli. This procedure needs to be reviewed and changed. The onus should be on the seeker of foreign technology, be it an industry or a "user ministry", to demonstrate to the satisfaction of the approval authority that import is necessary because the requisite technology elements, in type and quality, are not available in the domestic technology market. The potential importer must first shop in the domestic market and demonstrate that he has done this, before seeking approval for import.

4. Administration of S&T agencies:

S&T agencies are increasingly being treated on par with Secretariat Departments despite Commission structure for some agencies. The anatomy of the structure is rather less important than the physiology of its functioning. Whatever the rationale for government's economy instructions from time to time in respect of travel, use of telephone etc, in the case of Secretariat Departments, these measures are proving to be counterproductive in the case of the scientific agencies in that such restrictions hamper the full fructification of the other expenditures of the agencies. The cost-effective utilisation of S&T funds, admittedly liberally provided by Government, requires cost-effective administration and support services. Serious detailed thought will have to be given to matters of delegation of financial powers to the scientific agencies and the limits to the overseeing role of the Ministry of Finance in respect of these agencies through overall budgets rather than through each item of expenditure and a paper prepared for Cabinet appending, if necessary, a complete detailed redraft of the financial powers to scientific agencies giving operational meaning to the expression "Freedom from needlessly inelastic Rules" that appears in the Government Resolution setting up the Commissions.

5. Scientific Career Opportunity:

If young people are to be attracted to a career in the scientific agencies then their terms of service vis-a-vis the administrative cadres must make a scientific career at least equally attractive. For example, while an averagely competent IAS or Service Officer reaches the grade of Joint Secretary after about seventeen years of service when he is in his early forties most scientific personnel take about 25 years to reach such a scale if at all. This and similar inequalities are sure to dry-up the pool of young talent that will be so necessary for the scientific agencies over the next two decades.

Drafted by V.S.

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