A Note for Planning Commission Task Force VII
S & T for Alleviation of Poverty 5 MKP

Objeotive : Alleviation of Poverty = Generation of Surplus by the.section
Below Poverty Line (BH.)

Introduction:

How can S & T help BPL sections to generate the desired surplus in the vocation of their choice? There are two routes and both are important.

a) There are many technologies already introduced successfully in the country (e.g. HYV that produced, the "Green Revolution") that have benefited the other sections of society but not the BPL section. We need to find the cause, of this barrier and remove it so that already proven technologies benefit the BPL sections.
When we introduce any new technology, we should ensure that the delivery system will reach. It uniformly to all sections and it should not increase the social disparities.

b) We should evolve a strategy so that the S & T investment is profitably used for the whole nation including the rural and BPL sections in fair proportion.

The Barrier to S&T dissemination:
Our study indicates that the barrier.is mainly in terms of lack of certain basic skills in sections of the society. The normal communication channels are therefore not effective in reaching them.

All S&T dissemination messages assume certain prior basic language, measurement, calculation and operational skills. It was observed in our study that large sections of the rural society are deficient In these skills, even literate and educated people. These are therefore unable to use the S&T messages that presuppose these skills, even when they reach them. These sections are then bypassed by SAT and remain poor. Those who benefit by S & T gain in knowledge/experience and wealth. As both knowledge and wealth tend to grow exponentially, the gap between the two sections widens exponentially.

Some of the skill deficiencies identified are as follows:
1.Language: Apart from not knowing the sophisticated concepts & terms even in their own language, many have difficulty in understanding a chain of instructions. They can absorb only one or two at a time. (need low flux density)
2. Lack of ability to measure common units of length, area, volume, weight, temperature, time etc. Manipulation of these numbers involving simple arithmetic calculations (viz conversion of -units, direct and inverse proportions, calculation of rate, concentrations etc)
3.Inability to keep any records
4.Non-familiarity, with many operations that need minimum effort for training.

The Remedy :
This barrier in S&T communication must be removed. This requires person-person assistance and education to the disadvantaged group, a single windows service approach is necessary.

We are proposing a rural education-cum service system. Here the service function is integrated with education, making education more relevant to the community and reducing the cost of both eduction and development.

In the proposed system, (already in use in one village for the last three years on an experimental basis multi-skill -specially trained staff from local boys, give vocational and prevocational training to school students and the students in turn give services to the community as part of their training curriculum.The comminity pays for these services on no loss- no profit basis.The same facility is also used for non-formal training to) outside-school youth in the community, including BPL sections through TRYSBK and other schemes. (a brief note on the Vidnyan Ashram Project funded by CAPART, is attached, and describes the curriculum and service given) The staff In such vocational institutions can be given multisklll training and in this the community Polytechnics, the Krishi Vigyan Kendra, and the Health Extension services can play a- major part. Through these multiskill trainers, the school should be a channel for introducing new technologies at the village level, in any field, engineering, agriculture or health.

Health Extension Services	Krishi Vigyan Kend.ra	Community Polytechnics	C31R IIT NRDC University

Multi skilled Trainers

Formal Students Non-formal Students

Services to Community

New S & T Developments:
We cannot be satisfied with only delivering the benefits of the presently available S & T. We need to ensure that the considerable investment already made In the S &T establishment is also utilised for the progress of the nation as a whole and not ignore the needs of the rural/BPL sections.

At present the S &T 6815,13118131110~ depend on the existing network of information for formulating their portfolio of projects for research and development. The selection of projects is based on the twin considerations of a). An opportunity for gaining recognition of work/merit from peers or employers, from publishing the work or other channels. Employers will consider benefits accruing to them (e.g. in Industries.research) b)Ease of availability of relevant information and equipment facilities needed for conducting the research.

The needs of rural/BFL sections is poorly represented in such selected projects "because the information system does not get any inputs from the rural scenario.

To counter this situation, an elaborate be Information and referral system has 'been proposed in an Appraisal of the Community Polytechnics and I understand these recommendations have been accepted by the Ministry of HRD and will be implemented.

Basically it gives the method by which the communities Polytechnics train village youth to organize forums that discuss and identify their problems set priorities collect relevant technical and economic data. The problem and the relevant data background goes to the referral system, consisting of a chain of technical groups from the village center, set up by the Community Polytonal to Polytechnics, engineering colleges .etc to the top Research and Development groups in the country depending on where the challenge of the problem matches the skills of the technical group

The information system, four regional and one national, will have inputs on new technical developments from village level to University and national level in relevant fields and also techno economic data, performance indices of various rural activities, prices, production figures etc. This data can be drawn upon for the consideration of progressing projects, economic feasibility etc.

Interstate comparison of performance indices will also show areas needing attention. Such an information and referral system will communities problems and the relevant data to the various scientific communities in such a way that they (scientists) will see the opportunities for their own advancement in career through challenging projects benefiting rural areas.

Economic feasibility studies, cost reduction, and productivity increases in on-going rural operations will be an important part of the scheme. Such work should achieve coat reduction in existing national development programs and therefore allow higher rate of development.

Funding and Financial Needs:
The scheme put forward in this note involves only, the networking of the following programs with necessary funds allocated already and some consequent adjustment of priorities.
1. Vocational Education program of MBBD, along with the recommendations of the ad hoc group on Rural Vocations.
2. Community Polytechnic Scheme, along with the recommendations of the 1987 appraisal community
3. Krishi Vigyan Kendra
4. Health Extension Services.
5. Nehru Yuvak Kendra and Jana Shikshan Kilayama (as forum for discussion of local problems and collection of data)
6. IRDP for TRYSEM programs for training the BPL section and provide the loans etc.
No separate funding is therefore required for implementing the above scheme. However minor adjustments may be necessary in the constituent programs for coordination. Priorities must be matched for success of any network of programs.

If the networking proves effective, funding of the constituent programs should be flexible enough to allow for growth.