Chapter VI

POLICY ISSUES

6.0 The Irrigation Syndrome :

V.M. Rao's description of the perception of Indian Planners gives vent to the reasoning of planners when he says, "It would be indeed hard to find an Indian Planner or economist who is not apt to day-dream during his idle moments and, even more, when at work, about the time when the tyrannies of the monsoon would be no more than a bad memory relegated to a chapter in the history book".[1] This is sum and substance of the indiscreet thinking, which has ruled the planner's world for long leading to massive investment in irrigation. It is an obsession which has led everybody to believe that irrigation is key to agriculture development. The gangetic plains and lush green fields of Punjab have further acientuated the feelings. A line of caution has been well drawned by V.M. Rao when he says, "while this concern with the extension of irrigation is both important and legitimate, it is doubtful whether, outside the circle of technical experts on irrigation and agriculture, there is an adequate appreciation of the fact that the assimilation of irrigation by farming

1 V.M.Rao, "Linking Irrigation with Development - Policy Issues", in M.V. Nadkarni et al., Impact of Irrigation, op.cit., p.3.

communities in a slow process and that the developmental thurst imparted to the rural economy by irrigation may vary over a wide range, depending on the mode and quality of irrigation made available to the region".[2] There is more to it. The planners enthusiasm would have been checked by the wary politicians and administrators who have in past intervened and made decision which they found more convenient or suitable. Unfortunately enough, they never had any objection when it come to irrigation investment. Irrigation investment provided good scope of expenditure which improved the performance indicator levels of bureaucrates and technorates and helped the politicians in establishing their credentials by bringing tangible structures in their rural constituencies.

Secondly, growing conciousness regarding better and efficient water management has (thanks to the planning and financing of international expert groups and monetary agencies) helped camouflageing the more pertinent and real issues involved in the development of irrigation and agriculture. Prof. Rao appears to be complementing the technical experts in general about their sense of appreciation of problems. We would rather say that Prof. Rao has been a little liberal. If planners can fall prey to perceptions, the technical experts can succumb to pressures. The scene at the district level conveys vividly how the technical experts have had to rely on the prize opinions

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2. Ibid, p.3.

of the local leaders than to rely on what the physical condition mutely narrate. The ideas can never be concretised unless the technical experts put their stamp after tests. Our theme in previous chapters has been mainly to make an effort in showing how the technical experts have shown continuous disregard towards the physical facts borne out by the data which they themselves have collected. Social goal has been a convenient garb which has hid the realities so well that the social scientists have also become comfortable.

While delving deep into the causes and problems of un-/under utilization of irrigation sources, analysts have remained content by touching the aspects on operation, maintenance and management. That is really being stuck in shallow waters. The bed strata around is too pervious to hold such a store of arguments.

6.1 How Relevant are Issues in Management?

All along the discussion on the status of minor sources - especially minor irrigation tanks, we have mentioned that command area development has been one of the most neglected aspects. The department never includes field channels and drainage system in their plans and it provides very low budget for operation and maintenance. The lags in administration and leaks in the structures coupled with interpersonal problems affect the utilization significantly. Dr. Kumar's work shows how an efficient water management can improve the performance.

The issues are real and important. If is also probably the only answer to improve the utilization and water use from those structures which have already been created. There is a need to streamline the network of field channels which have been laid by farmers themselves and introduce 'Varabandhi',* system in tank irrigation also. This would enhance the area under irrigation. This would entail an additional cost to the projects. It appears from the expert views that the increase in benefits will be far greater than the costs. If the marginal cost ~~have the potential to generate substantial marginal cost~~ have the potential to generate substantial marginal benefits, there should not be any reason for not undertaking additional investments. This would be a favourable decision to salvage the already sinking investment.

The illustration of private management by a voluntary agency in the district proves the point. The private management in fact has a 'package of services to offer', as they say. Though the extension services are subsidised, they are promptly provided. With assured water supply, timely supply of ~~Hyv~~ HYV seeds, fertilizers and pesticides is maintained. This increases the faith of farmer in the system and his demand for water is firmly registered. This situation offers an alternative to the management problems. Would it be possible to handover the management to private management bodies? Well, the solution is

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* Varabandhi is a system of water distribution, where farmers themselves participate in the process of distribution. Beyond the outlet the farmers have to monitor themselves the time which is allotted by the authorities supervisors. This has become popular in major and medium project recently.

not so simple. The voluntary body which is functioning comprises of managers who are in with committment. Secondly, there is a top private management (Mafatlals - one of the 10 richest capitalists in India) which expects results. Thirdly, the services of the technical personnel are heavily subsidised in the sense that farmers are charged only for fuel consumption in supplying water. Such coincidences may occur once in a while but could not be repeated very often. We have also seen a private management in the form of cooperative body which has miserably failed to run the scheme.

The necessity for a better management - private, cooperative or public, is rightly felt but the feasibility of it is a moot point. When the government decides to appoint an irrigation clerk with support staif on a tank, it is not the mere salary which will be the cost, but housing facility, medical, pension, provident fund, gratuity and host of other things will appear on the cost list. When a private management offers salary and stops at that they would say it is a 'take it or leave it' proposition but when government does that they would say 'go to court'. This is the reality which should not be overlooked.

In short we may say that some issues in management cannot be solved and some of them are easily resolved. But, basically, these are not the issues which affect the viability of irrigation projects in general and tank projects in particular. The

real issues are much more fundamental and need more attention.

6.12 Irrigation V/S No Irrigation.

Convenient starting point for discussing the real issues would be the typologies which have been described by Prof. Rao. The type of irrigated farming which will develop will depend upon the source of irrigation. The main types as discussed are (i) irrigation situation remaining close to dry cultivation with water available for main agricultural season only, (ii) irrigation situation with increased cropping intensity (water available for next season also), and (iii) irrigation situation with water supply all through the year. The field studies in Karnataka State suggest that the first situation was observed where there is tank irrigation and a sub-type of canal irrigation.

If this situation is uniform all over the districts and regions we may say that the Panchmahals situation resembles the first situation as described by Prof. Rao. The cropping pattern in tank command areas, which revolves around food crops, bears this out. Could we then go on to add that tank irrigation does not have potentials to transform the agriculture in a very significant way? The onset of tank irrigation alone would not bring wonders in the field of agriculture.

This point has been made in order to raise the most fundamental issue which has thus far not received any attention. If the irrigation facility developed is not likely to

bring about 'irrigated agriculture' (Rao's third situation) and entails a huge social cost, would it not be prudent too look in for alternative investment opportunities? We have discussed at some length the vulnerability of the tank system in a given geo-physical setting. This may be true also for most of the districts and regions that are prone to drought. Lower precipitation with significant variation should give rise to similar kind of problems that we have already discussed. It is the total potential of surface and ground water in the area which becomes a physical constraint. This should basically limit the scope of irrigation development. The topography of the area may further lead to rise in costs for constructing suitable structures for irrigation. And yet one may end up with 'farming with irrigation' (Rao's first situation) nearer to dry cultivation.

Why Concentrate on Irrigation alone?

Ultimately the farmers outside the command area, whose area constitutes a good 90 to 95 % of the net sown area are carrying out some activity or the other. It is true that most of them must be doing bad in terms of total earnings. They must, however, be engaged in an enterprise or a mix of enterprises optimising their incomes with given constraints. There is hardly any attention paid towards this numerically important group. A clear opportunity available is the development of dry farming or rainfed farming. It is very unfortunate but true

that very little attention is being paid towards dry farming. Nothing noteworthy is done in developing drought resistance varieties which suit the area. To illustrate a case - in Panchmahals the north eastern belt grows maize as the staple food crop. Scores of HYV Maize varieties have been developed which give good results with adequate water. Nothing has been done for developing a drought resisting maize variety which 90 to 95% of the farmers could grow. This is true for almost all the crops. Growing more food may be in the interest of the nation as a whole but growing enough to eat may be what is needed for some area. In last three decades public investment in dry farming practices has been quite insignificant. This is reflected from the schemes that are being implemented. Providing subsidy for improved implements, bullocks and other inputs have been the only schemes. The other schemes of subsidising a milch cattle or a poultry unit goes more with irrigated agriculture rather than rainfed agriculture.

There has been some investment in research activities for developing dry land agriculture but there has been no area specific research. The dry farming in a drought prone area 'A' may not be the same thing as dry farming in drought prone area 'B'. Panchmahals district in eastern Gujarat and Kutch district in western Gujarat are examples in line. Panchmahals has an average rainfall of 900 to 1000 mm ~~for~~ per annum with 30 to 40 per cent variation and Kutch has less than 380 mm annual

average rainfall with 60 per cent variation. Yet both are drought prone. Would it be a sound policy decision to propose scores of tank irrigation and flow irrigation schemes for both the areas? The reality suggests that this has happened. Even in case of dry farming practices crops will have to differ and methods will have to differ. A cultivator in Kutch has to tackle much of sandy soil in low lying areas near sea whereas the bullock in Panchmahals has to negotiate with rocks spread uneven and with elevations. The need for area specific dry farming research is definitely there and initial investment could be in research.

Social forestry may be yet another alternative that is fortunately gaining ground. This is based totally on rainfed conditions. There are forest species which grow with average rainfall and its variations. The species have good timber value too. The wood hungry urban conglomoration have an insatiable demand for wood. The social benefit of plantation at this juncture, when forests are being fast denuded, could be extremely high with limited cost considerations. If it ultimately helps in restoring the ecological imbalances the social returns would go out of the accounts book. The cultivator has only to wait for a period of minimum 5 to 7 years till the returns start coming. This would imply that cultivation of land for agriculture may have to be diverted to forestry. The forest growing population will have to import food from other regions. Is this

not desirable that instead of producing a set of goods relatively inefficiently a group of people produce a set of goods where they may have relative advantage? In case of Panchmahals this is very appealing, since most of the area in north-east region which is brought under cultivation recently was covered with thick forests.

There may be a few other effective alternatives such as sericulture etc. which can be developed favourably in rainfed conditions. We do not intend to say that these are keys to success but we merely submit that there is need to pause and think before continuing investment in minor irrigation sources. Each arid and semi-arid region may have different geo-physical conditions and different development potential. There is dire need, to examine them. Sanctioning of irrigation projects everywhere may backfire. What is common with all these drought prone and/or so called backward regions is the way they have been approached by planners, administrators and politicians. Irrigation was thought to do wonders without ever examining the overall constraints. If the area has some definite constraints as we have in Panchmahals there should be an effort to examine what can be done more effectively to harmonise the population with resources other than water. If we accept the argument thus far then we arrive at yet another important question.

Agriculture V/S No Agriculture :

The fundamental questions which the society faces are : how to remove regional disparities in agriculture? and how to reduce the inequalities in personal income distribution? In fact the distribution conscious society has these considerations as the social goals.One cannot question the goals. They may have been derived out of social consensus. It is the approach which has had problems. Apart from Urban-rural disparities, there has been considerable disparity in the relative status of agrarian areas. The major factor has been climate. The government while identifying the backward regions took into consideration the climatic aspect but it failed to do so when it had to plan projects and schemes. The diagnosis of the problems of backward areas have been too simplistic in nature.

If we take a broad view of the strategy that has been adopted by government (leading to substantial public investment) towards the arid and semi-arid area, we can say that the strategy has been to invest more in the same sectors where investment is taking place elsewhere in better regions. To elaborate this we can say that the strategy has been revolving around the development of water resources with relatively more investment. It is simply allocating more to a district for the same sectors and similar schemes that work very well in wet regions. One wonders whether parity could be achieved through this strategy. The implicit assumption is clear that agriculture

is the only sector which can improve the living standards and good agriculture as if implys good irrigation facility.

This is something similar to Hegel's thinking as Marx interpreted. The approach revealed in strategy is upside down. The very fact that over years there has been disparities between regions, explains that it is not the human factor alone which is responsible for the existing disparities but the very natural base is not as favourable in some cases. It is this fact which needs an appreciation first. The technical innovation can solve some problems and bring the areas at par but that would definitely mean costs. One will have to question again the social goal. Do we want to create Punjabin Panchmanals? Or do we want to optimise the productionnn Panchmahals? With expectation of some wisdom in society we presume that the goal is the later one.

If later is the goal then the approach should be to examine first the resource base and resource constraints. It is likely that a few years back the area had enough potential to support the then existing population at their level of contentment. The population pressure may have caused much more serious problems now. Evidently in Panchmahals, this is explained by phenomena of seasonal migration. For sometime now seasonal migration has become a very regular phenomena. The alternative employment opportunities have developed so well that a resident of Panchmahals now appears to be better

optimising his net earnings by migration in winter and summer and by cultivating his field in monsoon.Even with irrigation he may be finding it more remunerative to go out and work rather than slog in his field which may not fetch him comparable returns.

The semi-arid and arid zones are to be viewed and examined in this context. There is a need to study the area first and then identify the feasible productive activities with given structural set-up, skill level and resource base. Once the identification is done, the feasibility and viability may be thoroughly examined to finally select the projects and programmes. Agriculture may not be totally ruled out but there may be enough scope for other production activities. The total potential of the area may not be able to support at any point more than a limited population at desired living standards. The society will have to think in terms of absorbing the additional population in some other productive activities. With all our concern to the neglected masses of the neglected areas, we invest in such projects which require skilled labourers and managers and who have to be imported from other regions. This is consistent with the social goals. The people are backward because area is backward and area is backward because the nature has not been very bountiful to it.

It is unfortunate but true that society has incurred already a huge cost without examining the potentials in proper context. This needs to be questioned and our analysis has been an attempt in doing so.