PARTICIPATORY NET PLANNING

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Abstract
The sustainability of high cost land based interventions such as watershed development has been a challenge. Active involvement of the primary stakeholders – the land owners and the watershed dwellers – holds the key to its success. Designing and implementing the project using the Gross Planning method, while being scientifically accurate, has not usually brought in the expected results. The reason is that the every land owner (big or marginal farmer) did not always concur with the proposals made by the engineer during the implementation of the project. This often stalled the progress of the project.

WOTR and its partner NGOs in the IGWDP, through trial and error, introduced the Participatory Net Planning method way back in 1995. Today the experience stretches over 170 watershed projects in Maharashtra. Systems are set to incorporate customer made technical treatments as well as financial plans. In PNP, the planning team (engineer and watershed committee members), together with the adult members of the farmer household, study the plot of land from all aspects, including that of proposed land use after treatment. They discuss and agree to the proposed treatments and accordingly the plan and budget estimate is made. The advantages of PNP result in the ownership of the project by the farmer households. PNP, if followed as prescribed, is also gender sensitive. It takes into the consideration women's needs as voiced by them in this land use planning exercise. When PNP is done for Common Property Resources, where the landless poor, marginal farmers, small livestock owners and the shepherd communities, together with the Watershed Committee and Gram Panchayat are involved, the village is forced to look into equity issues, so crucial for a 'win-win' situation and to the sustainability of the watershed interventions.

Introduction

History has taught us that unless the people are actively involved and own the project, any intervention will not sustain, no matter the cost or time invested. Hence, obtaining people's active participation at all stages (from acceptance of the project, through the planning, implementation, monitoring, evaluation and its ongoing maintenance) and their ownership of the project, will give the expected outcomes. This challenge is especially

so while implementing a land based intervention such as watershed development, where the treatment on each piece of land contributes towards obtaining the result / outcome of the whole.

Implementing a watershed development project is like fitting in the hundreds of pieces of a jigsaw puzzle. Each piece is unique, fits in, has a design that blends in with those of its neighbors and brings out the optimum benefits to the watershed community. It contributes towards a 'win-win' situation, so essential for long-term sustainability. The challenge that faces the project implementing agency (PIA) while undertaking watershed development, is to obtain the concurrence of the respective farmers as well as those of the neighbors, so as to do the land treatments required and obtain the expected benefits: soil conservation, water retention, biomass development and from the farmer's perspective, good economic returns.

Methods used for planning:

The only method used earlier for designing watershed treatments was Gross Planning. Since 1995 another method – Net Planning – has been introduced and is now the only method used by WOTR and in the Indo German Watershed Development Programme (IGWDP).

Gross Planning The steps involved in gross planning are:

(1) Topographic survey / contour mapping of (micro)watershed / catchment:
This is a very time-consuming process wherein grids have to be laid out in the entire catchment / field. Reduced Levels (RLs) are then taken of these grid points. With the help of these Reduced Levels a contour map is prepared. After preparation of the contour map, it is superimposed on a Cadastral / village map. With the help of this, one can easily determine the slope of the particular field by the Interpolation Method. Basically, the topography (contour map) is used to find out the slope of the particular field, average slope of the watershed and to see the drainage pattern of the watershed.

(2) After finding out the slope, other data like soil texture, soil depth and erosion status is required. For the soil texture, representative soil samples are taken and are analyzed in the laboratory (mechanical analysis by sieving method). Soil depth is obtained using an Auger. The erosion status can be observed in the field itself.

(3) Based on this the land is then classified into one of the 8 land classes. Land which falls in the first four classes is cultivable land and the remaining four classes represent culturable / non-culturable waste land. Once done, the most suitable land use for that land class is decided.

(4) After this the mechanical as well as biological/vegetative treatments to conserve soil and water are planned.

In the entire process, the farmer is usually never consulted during the planning phase, despite the fact that the land on which the work is to be carried out belongs to him. Because of this, problems emerge during implementation. Farmers, not having understood and not being taken into confidence, are not willing to accept the "very technical" and the so thought 'correct' solutions being planned for their fields. This creates the biggest hurdle in implementing the plans that had been drawn up. This was WOTR's and our partner NGOs' experience in the early years of implementation in the IGWDP.

To address this problem we realized that the farmers' involvement and acceptance of proposed measures was crucial. Thus the new method of planning called Participatory Net Planning was developed by WOTR and our partner NGOs in 1995 and has been in use in the IGWDP since then. It is now gaining wider acceptance and popularity.

Difficulties encountered doing Gross Planning

While Gross Planning is as time-consuming as PNP, it is less exhaustive and the farmer's presence is not required. The planning and budget calculation is easily done, as the farmers' are not consulted. The outcome is a good technical proposal that if implemented and maintained, would give good results.

Since the treatments are proposed on farmers' lands and the farmers are not involved in the planning process, they fail to understand the proposed work, sometimes refuse to implement the 'technical' treatments and often just tolerate the work done. Post project period the structures constructed are destroyed and at the least, not cared for. The often heard statement in a village is, "This is so-and –so's work. It needs repairs, but they should come and do it". Thus there is an enormous waste of scarce financial resources.

All the stakeholders involved encounter difficulties during the implementation process.

The farmer households: Their experience and traditions are important considerations and are of equal importance as the social factors that bind them. Their expectation from their land and its potential is distinct from that of the engineer designers. Hence unless accepted by them, they feel alienated from the process.

For the implementers and the monitoring institution: (i) a difference between the gross plan and the site specific treatments possible. (ii) Difference in the budget proposed and the actual required. (iii) And for the monitoring institution, the problem is to match the gross plan with the actual requirements, work done and expenditures made. (iv) In turn, this often causes conflicts between the implementing organization and the monitoring institution.

And for the donor institution (government or other) the important question is the poor cost benefit ratio (obtaining the economic returns for the investments made) and the sustainability of the interventions.

Having encountered these difficulties across the programme, in 1995, WOTR and the IGWDP introduced the concept of **Participatory Net Planning** for WSD.

What is **Participatory Net Planning**?

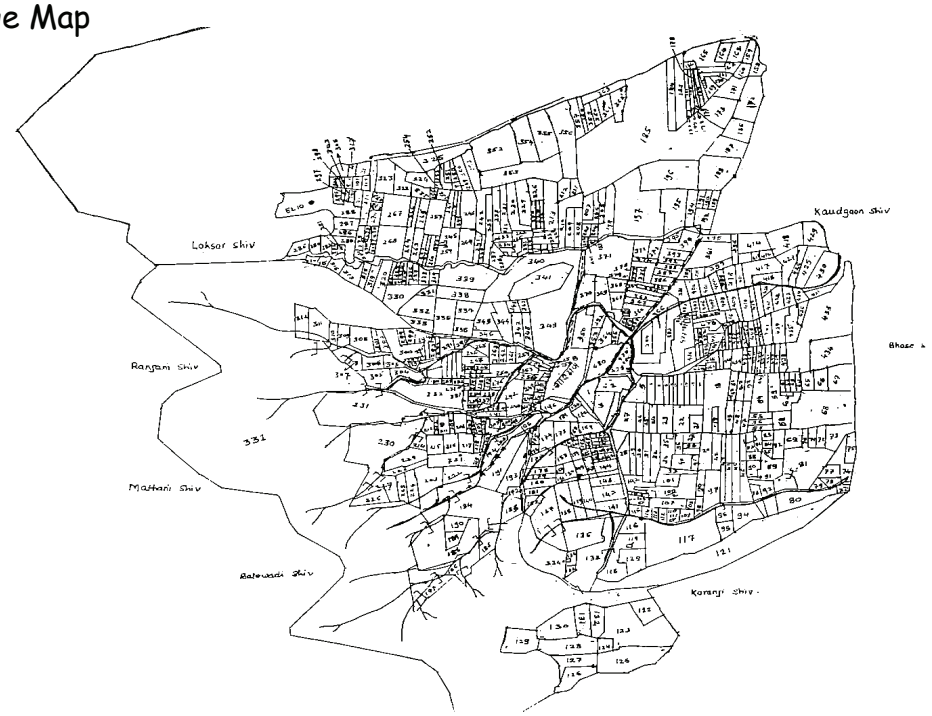
PNP is a tool, designed to actively include the farmer household in the planning for the required treatments specific to their plot of land. It is sensitive to the concerns and interests of the respective farmer household while designing the treatment of their land – the micro unit - which is both spatial as well as social. The respective plot is studied in detail (similar to that undertaken in the gross planning method described above) and discussed with the members of the owner household. Then relevant soil and water conservation treatments and land use are proposed. Costs are calculated based on the actual agreed upon requirements. Once consensus has been obtained regarding the proposed measures, confrontation usually does not arise during the implementation. PNP thus fosters ownership and hence the sustainability of the treatments undertaken. It fosters mutual learning, incorporation of indigenous technologies and the suggestions of the farmer household. It is very effective for the smooth implementation of the planned measures.

The twin objectives of the PNP are to:

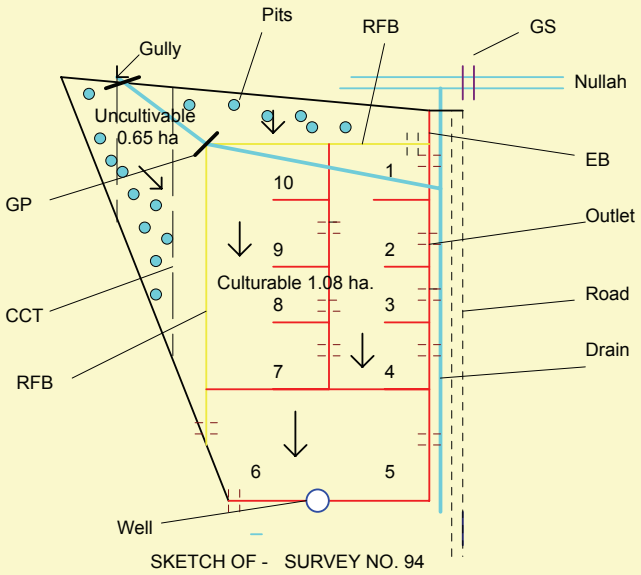
i. Promote Ownership and hence the sustainability of the work. This is achieved by involving the farmer household (all adult men and women of the household) in the decision making process. The views of the owners are elicited, regarding land use and treatments proposed. They are engaged in a dialogue wherein various issues and interventions pertaining to land husbandry and the potential are discussed, defined, and agreed upon.

ii. Site specific / tailor made plans for the specific field situations: Plans are made and treatments are proposed for the actual requirement of the area. Hence appropriate treatments are provided for and more-or-less, the expected results are achieved. Besides, for follow-up, site specific plans not only reduce the differences between planned treatments and those subsequently implemented, but also facilitate a more realistic allocation of finances.

Village Map



Sketch of Selected Survey Number



The PNP Process:

1. The team that undertakes the PNP consists of a technical / person experienced in the field of watershed development and a minimum of 2-3 members of the Village Watershed Committee (VWC). This team guides and motivates the farmer for the land treatments proposed.
2. The farmer household (all adult men and women of the household should be present) whose land is to be surveyed and planned for, is present on site. The land owners are put at ease while the team informally discusses with them the details of the land eg. the direction of the flow of the rainwater, the erosion, type of land, types of crops that can be taken up.
3. The slope of the land is then measured, soil depth taken using an auger, soil texture and erosion status of the field is observed. Depending on these the land is then classified. All details of the land are explained to the owners.
4. Once the land is classified, the most suitable land use and treatments are proposed to the owners. It does often happen that the farmer is completely unwilling to accept the suggestions given. The team (engineer & VWC members) especially the latter try to convince the owners explaining the reasons for every proposal. The owners' point of view is also considered. If the reasons are genuine, then the next best options are sought while taking note of their opinions and preferences.
5. During this process the team helps the farmer household visualize how the treatments would help solve the existing problems on their land, the transformation that will take place once treatments are implemented and the benefits that can be obtained. This visualization is effective when the household is present on site.
6. Once a consensus has been arrived at regarding the proposed treatments and land use, all the information is noted in the net planning format. This includes details of the present and the proposed treatments eg, land use, types of horticulture, species of trees, number of trees etc.
7. At the end of the exercise, the head of the farmer household is given a sheet of paper which contains the diagram of his land, on which details (present and proposed) are indicated. Together with the owners an agreement is signed which formalizes the consent of both husband and wife to undertake and maintain the proposed treatments.

In this manner on an average, in one day approximately 10-15 hectares of area can be surveyed by the team.

The presence of 2-3 VWC members is very essential. Besides helping the members themselves understand the concepts of the watershed development and the various treatments proposed, they are very helpful for motivating the villagers and the individual farmers to undertake the require for the proposed land treatments. By their

participation in the PNP process they begin to understand better watershed development and their village and land.

Pre-requisites of effective PNP

To ensure that the exercise receives the desired results, the followings points should be given attention:

- **Adequate community awareness and mobilization** regarding the watershed development project. This will motivate the individual for active participation.
- **Availability of Gat-number map and land records** of the area where PNP is proposed to be undertaken.
- **Demarcation of gat-number boundaries** to facilitate easy location at the time of PNP. Using the revenue (gat-number) map, each gat number is located on field with the help of a local guide (usually some of the village elders like the ex-Sarpanch or Police Patil are familiar with the location of the various gat-numbers).
- **Prior intimation to the concerned farmers.** If the farmers of a particular area, where PNP is proposed on a certain day, are expected to be present during the exercise, then it is necessary to inform them at least a day in advance. This can be done in a number of ways viz., by announcing the names of the concerned farmers over the local public address system, by house to house contact etc.
- **Adequate availability of time for PNP.** PNP is intensive, exhaustive and time consuming and only a limited area can be covered by each team each day. On an average about 10-15 hectares can be covered each day. Hence PNP should be initiated well before the actual implementation is to begin. This is important to have adequate discussions and interaction with the farmers and not be pressurized with time constraints.
- **Training of NGO Technical staff, field supervisors undertaking PNP.** PNP the process can be speeded up by deploying more than one team specially when larger areas are to be covered as in Feasibility Study preparation.
- F**lexibility in project design** that accepts farmers' suggestions which at times may not appear very technically sound. It is helpful when the sanctioning authority is aware that differences may appear and should be willing to negotiate and incorporate the farmers' proposals.

Advantages of PNP versus Gross Planning:

i. It is a participatory and socially oriented approach which maintains technical standards.

ii. Local and indigenous knowledge and practices are considered and where appropriate they are incorporated.

iii. The planning is site specific

iv. Active participation of the stakeholders during the planning is ensured, thus the 'ownership' feeling is encouraged and sustainability ensured.

v. It is easy for implementation as the stakeholder / farmer household was involved in the planning.

vi. Women members of the household are also included in the discussions, hence their opinions and requests are also considered.

vii. The farmer household knows the details of their plot of land.

viii. Gat/survey number wise budget estimate is made ands realistic costs are calculated.

Difficulties Encountered in PNP: When using PNP as the method for planning watershed treatments difficulties are encountered. Here are some of them with the proposed solutions as tried by us.

(i) Farmers initially agree and then backtrack during implementation. The reason is that sufficient time has not been given or their difficulties (both social and technical) have not been taken into account. The planning team should ascertain that there is a clear communication and understanding between the farmer household and the PNP team.

(ii) Refusal to accept treatments proposed. It is important to always have members of the VWC during this exercise. People from the same village and background, who know and understand the culture, have better methods of convincing their neighbors, than the engineer who is an outsider.

(iii) Women may be overlooked and not included, hence their requirements and valuable contribution may not be considered. It is important that the PNP team is sensitive to the opinions of women. They prioritize family needs easily met from their land resource, over cash crops. This is often forgotten when only the male members of the household are involved.

(iv) Treatments suggested by the owners may not meet the accurate technical requirements. The land owners have the final word. There will be some give and take and the PNP team would need to come to the best accepted solution in the given circumstance.

(v) The team / institution that sanction and approve the project should be prepared to have site discussions where discrepancies in technical accuracy are encountered. Expenditures made against sanctioned budgets should similarly be viewed.

(vi) And lastly, the donor / project funding institution should be prepared to have customer made and customer budgeted projects instead of the 'fit-for-all' outlays. For large scale projects the funding institution usually prefers standard budgets. While this is easy from the funding organization's point of view, it thwarts the purpose, results and outcomes. A good MIS software can be developed that accommodates the variations in the proposed treatments and costs and that can be used for monitoring, evaluation and accounting purposes.

User Group Planning / PNP for Common Property Resources

While PNP is done on the individual farmers' lands, a similar exercise is also advocated for the common property resources. Here the groups who are nearest to, or who most commonly avail of the produce of these resources should be involved in the exercise, besides the members of the Watershed Committee and the Gram Panchayat. PNP for common property resources is an opportunity for the village to consider the poor landless, small and marginal land holders and shepherd communities who are often dependent on these. These groups are usually left out of the process and discussions, while at the same time they are very important stakeholders. The sustainability of the CPR depends of them. The PNP can thus be an exercise for addressing equity issues with the watershed community.

Conclusion

To date, WOTR and NABARD together with our partner NGOs in the IGWDP have extensively used the PNP across 190 watershed projects in Maharashtra, covering approximately 190 thousand hectares and involving over 36 thousand households. Our experiences encourage us, as positive outcomes are observed in the field. We in WOTR have realized that the demystification of technology and putting it in the hands of even illiterate farmers will give tangible outcomes in improved land productivity and increased economic returns. A sure reason for sustainability!

Reference:

"Planning for Watershed Development: ", WOTR, 2004