A Report (TD 604)

On

Participatory Rural Appraisal (PRA) in Gudhvan village

Submitted By

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1. Introduction

1.1 Objective of the Study

The objectives of the study of Participatory Rural Appraisal (PRA) tools and exploring water problems at Gudhvan village are multifold. The main objectives are to get ourselves exposed in practicing the different PRA tools and to understand the water scenario of the village and people’s perception about the Anjap-Sugave Multi-Village Scheme for drinking water. Also, this study gives us hands-on experience of the Participatory Rural Appraisal activities prior to the scheduled summer internship of 10 weeks.

1.2 Participatory Rural Appraisal (PRA)

Participatory rural appraisal is an approach to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programs. Robert Chambers, a Fellow at the Institute of Development Studies (UK), first used the term Rapid Rural Appraisal in 1983. In 1985, the first international conference to share experiences relating to RRA was held in Thailand. This led to a rapid growth in the development of methods that involved rural people in examining their own problems, setting their own goals, and monitoring their own achievements. By the mid 1990’s, the term RRA had been replaced by a number of other terms including ‘Participatory Rural Appraisal (PRA)’ and ‘Participatory Learning and Action’ (PLA).

PRA involves local people and outsiders from different sectors and disciplines. Outsiders facilitate local people in collection and analyzing the information, practicing critical self-awareness, taking responsibility and sharing their knowledge of life and conditions to plan and to act.

The tools used in PRA are secondary data reviews, participatory observations, semi-structured interviews, mappings, time-line, trend analysis, seasonal review, workshops etc.

1.3 The MVS scheme

The Anjap-Sugve Multi-Village Scheme for drinking water was proposed by Maharashtra Jeevan Pradhikaran (MJP) to overcome the water shortage in the villages in the Borivalli Gram Panchayat in North Karjat due to widespread collapse of groundwater during spring and summer.
It was proposed in 1993 for 17 villages including Naldhe, Gudhvan, Anjap, Sugave, Boriwali, etc. The scheme is of pipeline based DW Supply, construction of which was approved in 1998 for cluster of 7 villages and 8 wadis. Work order was issued in May 1999 with initial tender cost of 182 lakhs, 55 lpcd capacity. The water source is Pej River, which is a perennial source of water fed by the Tata Hydro power project dam. When the scheme was initiated the population that would be benefited by the scheme was 4293 (1991), the designed population is for about 8200 (2030) and the present population is about 6000.

Now about two decades are going to pass since initiation of the scheme but still the work is incomplete. The villagers are not happy by the long delay and they blame the authorities. Also, the expected beneficiaries are worried about the post-implementation hardship of management and cost of maintenance.

1.4 The Village - Gudhvan

The Village chosen for our study is Gudhvan in Borivalli panchayat, Karjat taluka, Raigad district, Maharashtra state. The nearest market and nearest health centre is Kashale (~ 7 km), nearest railway station is Neral (~ 15 km).

The village has about 97 households and population of about 500 persons.

1.5 Work plan of the activity:

The work plan of the activity to be conducted was initially made by the team before leaving to the field. However, after the informal meeting held on the first day of the PRA activity, it was realized that the plan had to be revised due to different practical constraints such as availability of the villagers. There was an attempt to schedule the events with the aim of gaining maximum people’s participation.

The sequence of activities in which the PRA tools were implemented is as follows:

<table>
<thead>
<tr>
<th>No.</th>
<th>Activity</th>
<th>Date</th>
<th>Timing</th>
<th>Venue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Informal meeting</td>
<td>4th March 2011</td>
<td>9.45-11.30 pm</td>
<td>Shiva Temple</td>
</tr>
<tr>
<td></td>
<td>Activity</td>
<td>Date</td>
<td>Time</td>
<td>Location</td>
</tr>
<tr>
<td>---</td>
<td>----------------------------------------------</td>
<td>---------------</td>
<td>--------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>2</td>
<td>Transect walk 1</td>
<td>5th March, 2011</td>
<td>9am-12pm</td>
<td>Chilar river to Kasarbodan</td>
</tr>
<tr>
<td>3</td>
<td>Transect walk 2</td>
<td>5th March, 2011</td>
<td>9-11.45am</td>
<td>Naldhe Bridge to Antrat</td>
</tr>
<tr>
<td>4</td>
<td>FGD (Women)</td>
<td>5th March, 2011</td>
<td>4-5.30 pm</td>
<td>ZP school</td>
</tr>
<tr>
<td>5</td>
<td>Resource Mapping</td>
<td>5th March, 2011</td>
<td>7-9.30 pm</td>
<td>Vijay Khade’s house</td>
</tr>
<tr>
<td>6</td>
<td>Social Mapping</td>
<td>6th March 2011</td>
<td>9.30-11am</td>
<td>Mahadu Hari Khade’s (Police Patil’s) house</td>
</tr>
<tr>
<td>7</td>
<td>Timeline</td>
<td>6th March 2011</td>
<td>9.30-11am</td>
<td>Mahadu Hari Khade’s (Police Patil’s) house</td>
</tr>
<tr>
<td>8</td>
<td>Seasonality</td>
<td>6th March 2011</td>
<td>9.30-11am</td>
<td>Mahadu Hari Khade’s (Police Patil’s) house</td>
</tr>
</tbody>
</table>

### 1.6 Preparations done:

A lot of preparatory work was done before actually starting off to the field for the activity.

- The scope of the activity was decided since the short time duration put restrictions on the number of activities that could be completed.
- The tools that we would be implementing were fixed, with reference to the scope of the activity.
- A bulleted checklist was prepared for exploring each aspect of the water issue in the village, which was the main aim of the entire activity.
- Based on this, a comprehensive list of all the points to be covered under each tool was made, which would guide us in the further tasks systematically.
- After this, scripts were made for each tool. The script provided an in-depth analysis of each aspect of the tool under the following headings:
  - Description, Context
  - Purpose of script, Primary nature of group task
  - Time, Materials
  - Inputs, Outputs of this script
  - Roles of team members, Participants
  - Steps, Evaluation criteria
  - Authors, History, Revisions
Through the scripts, an inventory list was prepared, which included all materials that would be needed for the activities such as chart papers, pens, rangoli, etc.

Sample resource map and legend sheet was prepared which would aid in the mapping activities.

1.7 Structure of the report

This report is the compilation of all the observations made, information obtained and the overall experiences of the PRA exercise conducted in Gudhvan over a period of 2.5 days. Chapter 2 goes on to describe each tool, with respect to the information obtained from the same, and the learning about the implementation of that tool. Chapter 3 explores the water problem under different headings such as the supply-demand relation, the influence of the social structure in the water issue and the perceptions about MVS, the main focus of the PRA exercise.

The next chapter showcases the results of and discussions about the overall PRA activity, with respect to the things that came out from a detailed analysis. The Chapter 4 portrays the conclusions, along with individual learning from the PRA.
2. PRA Tools

The PRA methodology utilizes different tools to seek its goal of a participatory approach for addressing any issue. The following tools were used by the research team in the exercise under consideration:

1. Resource mapping
2. Social mapping
3. Focus Group Discussion
4. Transect Walk
5. Seasonality
6. Trend line
7. Time line

The next part of the chapter goes on to describe the details of implementation of each of these, and the observations and learning about the same.

2.1 Resource Mapping

Resource mapping can be used as an effective ice breaking exercise as well as a tool to investigate the knowledge of the people about their own locality, their resources and their spatial distribution.

Resource mapping can help communities:

- Identify valuable resources
- Ensure that everyone has access to the resources they need
- Avoid duplication of services and resources
- Enhance services
- Identify flexible funding strategies
- Use data to make informed decisions
- Cultivate new partnerships and relationships

Roles carried out by the team members in this activity were as follows:

Apoorva: Facilitation
Vivek: Inventory management
Vivin: Guiding
Ritam, Sunil: Increasing people’s participation, Notes
Choice of location and time of activity:
The activity started in the evening, at around 6.30 pm when most of the people were coming back home from their work and were free. From 6.30 pm onwards mobilizing the people was started and they were requested to gather in the ZP school ground where the mapping process was scheduled to take place. But due to lack of proper lighting facility, the location was shifted to a nearby house. The choice of location was based on the space availability for drawing and lighting. But the location had an additional advantage that it was almost near the entrance of the village and this helped in catching the attention of most of the people who were coming back to their home after that day’s work. Many of them stopped there and joined the mapping process. The actual mapping process started by around 7 pm. There was a little confusion among the villagers in the beginning, how to do the mapping and the facilitator had to explain many times to them and every time new people joined the team. The sample map and the list of legends were very helpful in explaining the process to them. After this initial push from the side of facilitator, there was an active participation from the part of villagers and the entire mapping was done by them. People from all age groups contributed equally.

The mapping process:
It is always better to start with lines then proceed to polygons and then to points in a mapping process. This kind of approach is easy and gives a better relative scale and sizes to the features and better directional sense. The process started by marking the village boundary on one side, which was the Chilar river. Then the major roads, streams other linear features were marked. Then marking areas such as fields, ponds and forest areas were done. Finally the point features like location of wells, tanks and big trees were marked. Some of the landmarks such as temples and some houses were introduced by the villagers randomly, for their own better understanding of direction and position. But this did not affect the flow of the process. Most of the drawing was done with color chalks, because it was easy to draw on the hard surface coated with a layer of cow dung.
**Interventions:**

After the entire resource map was done, a new intervention was tried out in it. The villagers were asked to introduce new features to the map such as possible locations for new wells, new bore wells, KT (Kolhapur-type) bandharas, check dams etc and those existing but requiring repair were also spotted out. Thus they were given the freedom to modify the map. Rangolis were used to identify such changes introduced by them. Such an activity can give valuable inputs for planning future developmental activities in that place.

**Other benefits from the activity:**

- Minor details were brought to surface (KT Bandhara, temples, new bore wells) that were not covered in Google maps, transect walk, etc
- Could be helpful for making villagers aware of some problems (eg: Defecation areas were adjoining the water bodies and it can cause health issues)
2.2 Social Mapping

Social mapping is used to present information on village layout, social infrastructure, demography, language-religion-cultural groups, health, wealth, other, etc. This provides an overview of the socio-economic aspects.

Roles carried out by the team members in this activity were as follows:

Apoorva: Facilitation
Vivek: Inventory management, Recording
Vivin, Ritam: Increasing people’s participation
Sunil: Notes

Choice of Location and Time:
The social mapping was done in Gudhvan with lesser amount of participation when compared to resource mapping. It was decided to conduct the mapping on Sunday morning expecting most of the people will be available on a holiday. When the team members went to mobilize people, they came to know that there was some social gathering in the nearby village and most of the villagers have left for that and the remaining were also about to leave. Finally a few elderly people who stayed back in the village gathered together in the house of Mahadu Hari Khade (‘Police Patel’ or the village spokesperson). But those who had come for the mapping process were highly informative. Two of them could identify the location of each and every house in the village and their residents and a lot more information.

The mapping process:
Due to time constraints, a new method of social mapping was tried out in Gudhvan. Instead of starting from the scraps, a basic map of the residential area of the village was made in a chart paper beforehand. The participants were asked to locate the houses of each person whom they knew on this basic map. As a result of the collective effort, finally the group could come out with a complete social map.

There was no major division in the village based on caste. But there was clear class stratification. So in the mapping process, measures were taken to identify the weaker and stronger sections of the village. Major indicators of dominance were taken as land holding, occupation, educational qualification and other assets such as cars and tractors.

- **Land holding:**
  Houses which had more than 15 acres land holding and the landless were identified. But the recent trend in the village is that to sell off land to farm houses and make money. So the land holding is not an accurate indicator about wealth. Most of the houses were well built and were having all facilities and amenities.

- **Occupation:**
  People who had government jobs were identified. People who did other services in Mumbai and adjoining areas, carpenters, grocery shop owner, PDS shop keeper, rice mill owners were also mapped.

- **Other Assets:**
People who owned tractors and cars were identified.

- **Educational Qualification:**
  There were 6 graduates residing in the village and all their houses were identified. Other than houses and class based division mapping, important places like temples, samaj mandir (community hall), school, playground, water tank and distribution of water sources mainly wells were mapped.

- **Caste based classification:**
  The Baudha Wada: There were a few houses which belonged to the SC category which were located within the village premises. Throughout the entire social mapping, this fact was not been put forward by anyone and there was no participant from that cluster of houses. Finally when the process was about to conclude, some discussion regarding the landless people revealed the existence of such a cluster. Other than this small group of people, the entire village was homogeneous and all of them were Marathas with surname ‘Khade’.

**Results and Learning:**
- Building up rapport to the extent that villagers frankly give out the social issues and dynamics is difficult in a short time span.
- Secondary data could have helped more (Documents from village office)
2.3 Focused Group Discussion with women

- **Details:** Venue → ZP primary school
- **Number of women participants:** 20-25
- **Timing:** 4-5.30pm
- **Roles:**
  - Apoorva: Facilitation
  - Ritam: Photos
  - Sunil: Notes
  - Vivek: Recording, observation

A focus group discussion (FGD) is a group discussion of approximately 6 - 12 persons guided by a facilitator, during which group members talk freely and spontaneously about a certain topic. A
FGD is a qualitative method and its purpose is to obtain in-depth information on concepts, perceptions and ideas of a group. A FGD aims to be more than a question-answer interaction. The idea is that group members discuss the topic among themselves, with guidance from the facilitator. A FGD also helps to bring out the perceptions of the weaker stake-holders in an issue, which otherwise will not come up.

In case of the village under consideration, most of the water fetching activity is done by women and hence having a focused group discussion with them helped in understanding the water issue better. There is no source of water (except a recently dug bore well) in Gudhvan. All the domestic and drinking water is fetched either from the river or from the hand pump located in Borivali village.

Bringing in women participation was a problem initially. But finally we could get in a considerable number after walking through the village and personally inviting them. Women from different age groups participated in the activity and all of them were active right from the beginning. Hence, striking a conversation was simpler.

During the discussion it emerged that they were the major sufferers of the water problem and there was a strong thrust on solving this issue as soon as possible. While discussing their daily schedules and the water requirements for each activity, it was realized that fetching water was a major time and energy consuming activity. Another observation was that females of all ages (right from 7 years to 60 years) had to contribute in the tedious water fetching task.

The meeting went on for around 1.30 hours after which it was difficult to engage the women anymore because of the time pressures of fulfilling other domestic tasks. Also, not much discussion was possible on the fact of male members not fetching water, even in the case where a woman was not well, since there was not enough time to build up the required rapport.

The points next mentioned were touched upon in the FGD, mainly keeping the water issue in mind*.

Daily routine: Activity, time spent for each

<table>
<thead>
<tr>
<th>Timings</th>
<th>Activities</th>
</tr>
</thead>
</table>

* The points next mentioned were touched upon in the FGD, mainly keeping the water issue in mind.
<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6 am</td>
<td>Waking up</td>
</tr>
<tr>
<td>8-11 am</td>
<td>Water fetching</td>
</tr>
<tr>
<td>1.5 hours</td>
<td>Washing utensils</td>
</tr>
<tr>
<td>12 noon</td>
<td>Cooking</td>
</tr>
<tr>
<td>2 pm</td>
<td>Lunch</td>
</tr>
<tr>
<td>½ hour</td>
<td>Washing utensils</td>
</tr>
<tr>
<td>1.5 hours</td>
<td>Rest</td>
</tr>
<tr>
<td>3-6 pm</td>
<td>Water fetching</td>
</tr>
<tr>
<td>4 pm</td>
<td>Tea, preparing dinner</td>
</tr>
<tr>
<td>9-10 pm</td>
<td>Sleeping</td>
</tr>
</tbody>
</table>

- **Options for fetching water**
- **Work load on women with regards to water fetching**
- **Water usage for all relevant activities with respect to number of members in the house**
  
  - **Water usage for drinking and cooking:**

<table>
<thead>
<tr>
<th>No. of family members</th>
<th>No. of pots of water required (1 pot=10litres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

  - **Water for bathing, washing, toilet, cleaning, etc:**

<table>
<thead>
<tr>
<th>No. of</th>
<th>No. of</th>
<th>No. of pots of</th>
</tr>
</thead>
<tbody>
<tr>
<td>family members</td>
<td>female members in family</td>
<td>water required (1 pot=10litres)</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>16-20</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>30</td>
</tr>
<tr>
<td>11</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>4</td>
<td>20-24</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>15</td>
</tr>
</tbody>
</table>

Seasonal variations in the use of water (Drinking and other purposes)
Sources of water
Politics associated with sharing of water between Borivili and Gudhvan
Health problems due to water fetching
Age parameter in the water fetching activity

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Water carried (liters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>12-13</td>
<td>10</td>
</tr>
<tr>
<td>22</td>
<td>35-40</td>
</tr>
<tr>
<td>&gt;60</td>
<td>15</td>
</tr>
</tbody>
</table>

It was really shocking to understand that ladies carried as much as 4 pots (10*4 liters) on the head at a time.

Attitude of men towards water fetching: When discussed, it was found out that men fetched water only if the house had a bullock cart. All the manual fetching is done only by women.

Rainwater harvesting: There is a significant amount of water harvesting carried out in every household, which caters to a significant portion of the water requirement in monsoon.

Firewood fetching: Firewood fetching is mostly done on a bulk basis in case the house has bullock cart, wherein the firewood required for one season is fetched at a time and
stored appropriately in the house. Two bullock carts full of wood is sufficient for six months. If there is no cart, women have to go for fetching the firewood and this is usually done in the morning and evening.

(*Information about all these points is covered in detail in the chapter “Exploring the water problem”.)

**Learning:**

- An FGD can be a very effective tool to collect a lot of information in a limited time.
- Tabulation, comparative study is possible using the information obtained in a FGD.
- There was a general agreement over data and perception of problems, since the group was homogeneous.
- Dominant members are still present even in a focused group. Hence, it becomes necessary to ensure that everyone speaks.
- Once the conversation is struck, there is a free expression of opinions since the group was homogenous and everyone can get a chance to speak, with no significant difference in perceptions.

*Figure 3: Women FGD at Gudhvan village*
2.4 Transect Walk

![Transect Walk Diagram]

**Figure 4: Transect walk routes of both teams**

A transect walk is a walk taken by participants and facilitator through the area of interest, observing, asking, listening, looking, identifying different zones, seeking problems and possible solutions. The finding are documented and they can be mapped on to a transect diagram or map. Transects are an ideal point of departure for a research/planning process in a village, because we establish the villagers as the experts on living condition of that area. As villager and facilitators walk through the village-scape they can observe both natural and build aspect of the environment. During the transect participants locates and pinpoints the various physical aspects of the village land. Conditions and physical features such as soils slopes, soil types, farming practices, status of
crops grown, deforestation, soil erosion, and soil and water management. Through the direct field observation and exchange of information farmers learn to identify production problems which will gradually lead to the identification their causes and possible solutions.

The group was divided into two for more area to be covered in less time. Two transect routes, each 2-3 km long across the village, were mapped out on different property and divided into sections, as much as possible. The transects took approximately 2-3 hours to walk and require long pants and appropriate footwear. The recorder(s) should imagine themselves inside a 10m box as they walk at a uniform pace along the transect route and record all the details in soil and land use pattern in each changes in MSL (Mean Sea Level). One of the Team has done the transect walk with GPS station with MSL and Latitude-Longitude details. The usage of new technology in transect walk helped in many ways by giving exact positions and MSL of each point. In the GPS Geo XT station it is also possible to tag the details of each point. This made analysis easier than the conventional transect walk method.

**Team 1:**
CTARA: Sunil, Vivin
Villagers: Eknath Narayan Khade, Bhanudas Shankar Khade
Route: Chilar river to Kasarbodan
GPS Device : Geo XT station
Timing: 9 am-12 pm
Figure 5: Transect route of team 1
**Team 2:**
CTARA: Vivek, Ritam, Apoorva
Villagers: Patil Sir, Dinesh Khade
Route: Nalde bridge to Antrat
Timing: 9 am-11.45 am (Apoorva: Facilitation, recording, photos, Ritam: Taking notes, Vivek: Calibration of steps versus distance)
**Figure 6: Transect route of team 2 and the transect map**

*Topics discussed and observations:*

- General division of land cover: Forest area, paddy fields, fallow and waste lands, common land, grazing lands
- Change in elevation and associated changes in vegetation and land use
- Soil types, their uses
- Their Problems, and opportunities for improvement
- Crops taken
- Types of vegetation
Non-timber forest produce and scope for cottage industries
Problems due to free grazing, cactus fencing
Other uses of soil: Brick Kiln
Rab preparation and advantages
Effects of water scarcity: Dryness of land
Impacts of non-availability of water on social conditions, changing occupations
Lack of water harvesting structures
Possible sites/ sources of water (Umbar tree, site for borewell)

Learning:
- Important to have a good resource person along with us.
- Very good tool for an overall understanding of the terrain
- Important input for resource mapping (For cross-checking and prompting)
- A fair understanding about the relative distances between landmarks
- Useful to gauge villager’s attitude and perceptions about their own resources:
  Local versus commercial use

2.5 Seasonality

Details: Venue→Mahadu Hari Khade’s (Police Patil) home
Number of participants: 7
Timing: 9.30-11 am
Understanding the seasonality helps in the following aspects:

- Assists in Monitoring Change: Monitoring Calendar/Baseline
- Assists adviser to make estimated projections for the future

This chart was done by the participants along with the activity of social mapping. This calendar also combines the element of linear ranking. This can be pointed to some of the key issues and also resources available in the village. It gives a different view and aspect of studies in a tabular way. This will help to understand the usage patterns, availability of resources annually. Though the number of participants was less for the meeting, we got ideas on this in several other interviews also.

Seasonality has been done in Madhu Hari Khade’s house which was a neutral place for all villagers to come. But as it was on Sunday morning and there was a marriage function on the nearby village, everyone went for it and less people turned-out for the meeting. Most of the peoples who came for the meeting were older ones. In seasonality we considered agriculture, labour, cattle, water availability as main criteria and collected the details throughout the year.

Water availability in different sources at different times is clearly recognized through seasonality tool. Uses from respective sources across the seasons have been identified. This all will give the
demand and supply graph of resources throughout a year. As we go through the table we will notice the variability of each particulars round the year. Crops grown in the village were Harbhara, Moong from November to January where water from is available and irrigation can be done. But due to open grazing and water availability reduction in river there is no agriculture from February to July. From July as rain starts cultivation also begins, mainly they grow paddy. This cultivation there is an in-flow of labor on June and July also in October to December. This increases the demand for water. So these are the major supply and demand details of the villages throughout the year.

2.6 Trend Line:

In Trend-line, graphs are created for long-term changes over time based on the local people’s accounts of the past, of how things close to them have changed - ecological histories, land use and cropping patterns, customs and practices, trends in fuel use, etc. Although secondary data may be available on these, a local perspective facilitates the design of development initiatives.

Our trend line illustrates the fluctuations in the population, agricultural land holding, literacy, rice production, jobs taken by villagers outside village etc. over time. The information was gathered through semi-structured interviews and group discussion with the community members.
Figure 7: Trend Line

2.7 Time Line:

Time line has helped us in identifying important past events. With this information the team is better informed about the area, community, progress and the problems. The team conducted semi-structured interviews to obtain oral histories of past events. These oral histories can provide details on local events, how the community perceived them, and the eventual impact of these events on the local area and the community.

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961</td>
<td>ZP primary school</td>
</tr>
<tr>
<td>1962</td>
<td>Radio</td>
</tr>
<tr>
<td>1972</td>
<td>Drought</td>
</tr>
<tr>
<td>1977</td>
<td>Electricity</td>
</tr>
<tr>
<td>1980</td>
<td>Chilar River bridge built</td>
</tr>
<tr>
<td>1980</td>
<td>Building of Gudhwan dam began, but not completed</td>
</tr>
<tr>
<td>1980</td>
<td>School building constructed</td>
</tr>
<tr>
<td>1986</td>
<td>Inauguration of water scheme</td>
</tr>
<tr>
<td>1986</td>
<td>Rice Mill</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>1995</td>
<td>Village water tank</td>
</tr>
<tr>
<td>1996</td>
<td>Flood</td>
</tr>
<tr>
<td>1998</td>
<td>Shiva Temple</td>
</tr>
<tr>
<td>2000</td>
<td>Gudhwan-Neral Bus</td>
</tr>
<tr>
<td>2005</td>
<td>Flood</td>
</tr>
<tr>
<td>2007</td>
<td>Pipe joined to water tank</td>
</tr>
<tr>
<td>2008</td>
<td>Cable TV</td>
</tr>
<tr>
<td>2010</td>
<td>Solar Lamps</td>
</tr>
<tr>
<td>2010</td>
<td>Village won &quot;Tantamukti Village: prize&quot;</td>
</tr>
</tbody>
</table>
3. Exploring the Water Problem

Water issue in all the villages of the Karjat region has been really serious over the years and Gudhvan is no exception. The village, which looks like a prosperous one at a first glance, suffers from the grave danger of water scarcity. Depending upon the primary observation and conversation with villagers, the water related problem can be analyzed from two angles viz. supply issues and demand issues.

3. 1 Supply issues:

Gudhvan is situated in a semi arid region of Maharashtra. Though there is a nearby river called Chilar, it is a seasonal river and hence availability of water in it is a matter of concern. The water bodies get filled up during the three months of monsoon. But clearly they are not enough to water an entire village throughout the year. Water crisis strikes during the month of March and it takes the worst shape during the month of April and May. Also, lack of watershed management measures makes it impossible for carrying out agriculture in non-monsoon seasons since most of the useful water just flows away.

One of the major reasons which make the problem worse is the physiographic condition of the Gudhvan village. There is a layer of hard rock below the village terrain. As a result, several attempts of digging bore wells have gone into vain. One bore well which has been dug very recently in the house of a villager, which, to some extent, caters the needs of water for domestic purposes of the village But since it is a private bore well, it cannot be relied upon as a public source of water.

Villagers fetch their drinking water from a bore well located in the next village - Borivili which is not far from the village boundary. But they have to follow the timings and restrictions kept by the people of Borivili.

There is a common tank near one of the entrance points of the village. This tank was made as a part of the MVS scheme. The tank is filled either by MVS scheme or by tankers during the month of April and May.

Villagers do not feel MVS to be a dependable scheme. They know that they can neither take a chance of digging bore well (Even 250-300 feet digging did not yield water. Digging bore well is a very expensive process which they cannot afford to do time and again.) Nor can they entirely
depend on the Chilar river. As a result, they harvest rain water at their house during the monsoon, which to a significant extent satisfy their needs during the monsoon and for next 2-3 months.

3.2 Demand issues:
Demand of water in Gudhvan can be classified into the following sections –

The demand of water (both drinking and domestic) reaches its peak during the months of April and May. But by that time, the water level in the river goes down to an alarming level and villagers suffer a great deal. Contrary to the common belief, the demand of water during the rainy season also stays very high. This is the time when most of the agricultural activities such as ploughing, sowing, weeding, etc take place. Farmers take bath twice a day (once before going to the field and then once after coming from the field). During this time of the year, agricultural labors also come to the village and this increases the household need for water, since the employer takes care of the food and water requirements of the labor. During the winter season, domestic and drinking water demand is moderate.

The other two major water demands in Gudhvan village are the live stock maintenance and existing brick kilns. The water of Chilar river is used for both the purposes, wherein cattle are taken to the river to bathe, etc and water is fetched in large plastic cans through bullock carts.

3.3 Social Structure of the village:
Water problem is not only caused by harsh physiographic conditions but existing social dynamics also play an important role in it. Surprisingly, this village is socially quite homogeneous. Most of the villagers share the common surname “Khade”, are in a sense distant relatives and belong to the Maratha caste. As a result, caste wise division of water facility is absent in the village. The important social indicators are listed:
**Caste**
- Most of them are ‘Khade’ → Maratha caste
- 4-5 houses of Bauddhawada (SC category)

**Class**
- Superficially, most of the houses look very prosperous.

**Religion**
- Most of them are Hindu
- Very few follow Buddhism

**Profession**
- Agriculture, service in Mumbai and adjoining areas (both Government and private service), 1 carpenter in village, 1 PDS, 1 grocery shop, Police Patil, Rice mill

**Education**
- 6 graduates. (BA-4, BE-1, studying diploma-1)
- Only 20% of the villagers are illiterate. (older generation)

Class is one of the very important parameter with respect to Gudhvan water issues. Only one family has a private bore well in their house. That family has a huge land holding, even after selling some of their land near the Gudhvanwadi village. Thus they can afford to invest on bore well. According to one member of that family, most of the villagers have the access to this bore well for the purpose of domestic use\(^1\).

Water fetching is mainly done by women of almost all the age group (specially 7 years to 60 years). Women walk to the bore well in Borivalli village to fetch the drinking water. Men fetch water only if they have bullock cart. Due to this daily drudgery of fetching water on head, women face different health issues viz. back, leg ache and weakness.

One of the remarkable observations was the feeling of social safety among the villagers. Many of the male members sleep outside their house during the summers. According to the rice mill owner of the village, no one steals the paddy husk which is piled outside the rice mill. That husk is sold to the brick kilns at a rate of Rs 12,000/- to Rs 15,000/- per truck.

Gudhvan village received “Tantamukti Award” in 2010. From the standpoint of an outsider, it was felt that water problem is the only major problem that the village faces.

### 3.4 Perception about MVS:

Since the water issue in the village is intense, all villagers are aware of the need to solve it. The planned Multi-village scheme (MVS) that was started quite a long time ago, aimed at solving the

\(^1\) Due to lack of time, this claim could not be cross checked.
water problem in Gudhvan as well as other few villages which are facing the similar problem. But since the scheme is not yet fully complete and working, no significant improvement can be seen till the date. Most of the people that the team spoke to said that they knew the basic facts about the MVS, reflecting a general awareness about the scheme. However, none were very optimistic about the scheme.

During the conversation with the villagers, their perception about the MVS project became clear. The perceptions are as follows:

- Though majority of the infrastructure of MVS is ready, the water purification plant is creating a bottleneck in the successful implementation of the scheme. The long term delay in the process has made the villagers lose all faith in the government scheme, since they no longer have any kind of guarantee about the scheme.

- Currently, the villagers have to pay a nominal amount as water tax, since all of their water demand is being fulfilled by river (a common resource) and a hand-pump (again a common source). In case the MVS is implemented, the villagers will have to pay water tax. Another cost that arises is the maintenance cost, which the villagers do not want to take over their shoulders.

- MVS will only distribute water for drinking purpose. But the villagers also require large amount of water for other domestic purposes (which has already been mentioned). Thus they are not much interested about a scheme which will cater to only limited portion of their water requirement. According to them, they can purify the water at an individual level; so there is no necessity of supplying purified drinking water. They also know that if there is a purifier in place, the tax which is to be paid for using that water would be more.

- Maintenance, management of entire scheme under one Gram Panchayat will be difficult as the villagers are neither equipped technically nor they have the skill to manage a project of this magnitude. They are aware of this fact and that is why they are not willing to take the risk of accessing this project unless it is maintained and managed by some external governing bodies.

- In lieu of this, they support a single-village private scheme to a multi-village scheme.

- If there is a leakage anywhere, the entire water supply to all the villages under the scheme will be disrupted.
Everybody believes that connecting Pej and Chilar rivers at a strategic point will solve all the problems of water scarcity in the village, since there will be flowing water throughout the year at their dispense. Another point in favor of this is that even though the supply increases due to such joining of rivers, there will still be a frugal use of water, since the villagers will still have to fetch water from the river.
4. Results and Discussions

After the field work was done, the data and information were analyzed thoroughly by the team and some interesting findings were made. Further it was a kind of self evaluation of the way in which the activities were carried out and the usefulness of its outcome.

4.1 Resource Mapping:

More than an ice-breaking exercise it was successful as a tool in understanding the spatial distribution of resources. There will be advantages and disadvantages in the order of carrying out resource mapping and transect walk. It was an overall success considering the participation of the villagers and the outcome.

4.2 Social Mapping:

Even if the participation is less in the activity, the knowledge and the co-operation of the participants is a major factor. It should be conducted in a neutral location where the entire participant can express their views freely. Complex socio-economic realities and power relations are difficult to understand in a short period of time. Still after data analysis, we could find out the influential persons in the village and the locality where more powerful people are segregated.

4.3 FGD:

Women have to spend minimum 4 hours per day in the water fetching activities. There is no security in the source of drinking water since they are getting it at the mercy of nearby villagers of Borivili.

- Water available per person per day for drinking and cooking: 6 litres
- Water available per person per day for other domestic usage: 26 litres. (which is far less than the standard value of 50 LPCD)
4.4 Transect Walk:

Other than understanding the soil types, land use pattern and the condition of different resources, transect walk also clearly brought into picture the lack of water harvesting structures and problems due to free grazing. The village has the potential to build up some sort of cottage/ agro based industries especially in jam and wine making using some of the fruits and plant extracts locally available in plenty. One of the results of the discussion was the difference in attitude of the villagers in using such resources for commercial purposes.

- Use of GPS in the process helped in developing a perfect transect map.
- It is very important to have a knowledgeable person with us while on a transect walk. Otherwise, identification of soil types, vegetation types and reason for land use pattern etc can not be properly collected properly.

4.5 Timeline and Trend line:

It is easy to relate the changes occurring in that village to some of the historic events happened in that village. So instead of specific years, the villagers find it easy to identify the period of occurrences of major events. But this is a problem with elderly generation people and not with the new generation who are educated.

- There is no much variation in population in the village over the last 50 years. It may be due to migration of people to urban areas.
- Agricultural land holdings are drastically decreasing due to selling of land to farm houses after 1970s. Now the per capita land holding is almost half of the land 50 years ago.
- Many of the young people are moving out of the village to Mumbai and nearby areas and this trend is still increasing.
- New generation people are mostly educated and the number of illiterates in the village is very few now a days.
• Per acre rice production is very fluctuating and is very sensitive to floods and droughts but it has increased very much after the introduction of chemical fertilizers in 1980s

4.6 Seasonality:

• Agriculture pattern was that of a typical Maharashtrian village. Agriculture practiced in Gudhvan is mainly subsistence and all the agricultural fields are rain fed.
• Migration of labour during agriculture activities is prominent.
• Open grazing of cattle plays a limiting role in dry crop cultivation.
• Water availability in common tank is just not enough during early summer months.
5. Conclusions and Learning

The overall PRA experience brought a lot of insights about the water issue as well as the implementation of different PRA tools. Section 5.1 mentions such conclusions that the team arrived at after the completion of the entire activity. These conclusions are also useful from the point of view of policy, and need to be considered while taking any steps with reference to the multi-village scheme.

5.1 Conclusions about the PRA activity

- Most of the PRA tools are participatory and they require active participation of the villagers for their successful completion. But making people participate is an art and skill. One can hone his/her skill only with experience and practice.
- Some activities need just initial push / guidance then people enthusiastically carry forward the process. E.g.: Resource Map.
- Since the village was very homogenous with respect to the social structure, it was difficult to understand entire social dynamics in the short span of 2½ days.
- Presence of an educated person (example: school teacher) made the mobilization of people and the overall process easier.
- Tools like resource/social map should be done in places where everybody feels free to participate.
- Rather than lining up one activity after other, a mix of community games/magic shows/songs etc. with the PRA tools helps in holding the people’s interest.
- People expect a lot from the team conducting a PRA, since they also devote a lot of time for the same. Hence it is better to give them a clear idea about the intentions of the activity right at the beginning.
- For conducting all the PRA tools properly the team needs an active participation of the villagers. But it is not necessary that the villagers will be available in the time favorable to the team, due to their personal and professional commitments. Longer time duration of activity will facilitate a detailed analysis of the issue.
5.2 Conclusions about the water problem

- Almost all houses were well built with assets such as dish TV, motor bikes, etc but still ladies have to fetch water and are suffering due to the labor and time involved.
- Only one hand pump is shared between Borivali and Gudhvan for fetching drinking water. Villagers are not sure what they will do in case that source gets contaminated or goes dry or the hand pump gets damaged.
- One important observation is that there are not watershed management efforts even though rain is plenty.
- There is a need to revisit policies on the carpet ban, since the illegal activities like wood cutting are defeating the purpose of the ban. Prior to the ban, the forest was an important source of income for the villagers. Due to this, the forest was preserved by the people themselves. Now, there is no incentive for them to maintain the forest area due to the wood cutting ban, while has given a boost to the illegal cutting.
- Since water forms a close relation with the everyday life of people, the water issue is closely related to social issues. For example, the increasing number of villagers taking up Government or other service jobs in Mumbai or nearby cities / townships can be traced back to the lower productivity of agriculture which points to the water issue in the village.
- In a male dominated society, issues are generally explored with a strong gender bias, without a consideration of women’s perspectives. Conducting the women FGD helped to realize that they are the real sufferers in the water problem.

5.3 Individual learning

Apoorva:

- Working as a group is an enriching experience, since if you have good co-ordination and understanding amongst the team members, PRA can really be effectively implemented.
- Clear division of work amongst the team during the entire activity helped a lot. In this respect, the scripts prepared for each tool were valuable.
- Since I was the only person in the group understanding the local language, the entire responsibility of facilitation fell on me, which was an arduous task.
- Not understanding the vernacular language also kind of cut off the other members from the group from the activity at times, since once the discussion with villagers catches pace,
it becomes difficult to stop the conversation in between and translate to the other members of the group.

Being a female put some inhibitions since i could not approach all people, especially the male members easily, since i did not know how that would be looked upon as. Establishing rapport with the young males would have helped in ice-breaking which i could not achieve in especially the short span of 2.5 days.

It came up that too much planning does not help in an activity as dynamic as PRA. Flexibility in the schedule should be maintained so as to make the activity timings convenient to the villagers.

Interventions suggested by villagers need to be validated, since they may really prove useful due to the rich local knowledge.

More entertaining games, songs, etc would have helped in making the PRA activity popular and more interesting. This point needs to be thought over during the ten weeks stay.

Acceptance of the MVS is a big issue, and needs to be addressed systematically by an in-depth analysis.

In any case, the water issue in the village is extremely critical. Awareness and village-level measures need to be immediately taken up, else the village will be a dying village soon.

The intervention of farm houses, with people selling off their agriculture lands needs to be revisited, since this may put a considerable pressure on the resources of the region.

**Vivek:**

- PRA tools need to be modified from time to time and place to place.
- Command on local language is a must for better results
- Schedule of activities should be flexible.
- Good communication skills and ability to make people involved in the conversation and interaction need to be developed for conducting a PRA.
- Water scarcity is a major issue for any place which will have direct or indirect links with almost every problem in that place.
- Only after staying with the villagers for enough time and building a good relation with them can help in getting some of the less obvious social problems and power relations.
Overlapping the results of various tools and data analysis is an important thing which brings up many interesting collusions.

*Ritam:*

The experience of two and half days of PRA activity has been one of the best experience of my life as this was the first time I got an opportunity to work at the ground level. Group members of our team have a homogeneous mind set which made the entire work process easy and enjoyable.

Knowing the language of the villagers is extremely important; otherwise one can not participate fully in the participatory activities or communicate with the villagers properly. Respecting the culture and commitment of the villagers is extremely important as that encourages the villagers to participate in the participatory activities.

It is important to maintain the attitude of a learner rather than acting like an expert. Villagers should never feel offended due to any of our action.

Building a good rapport with the younger generation of the village is very important as they relate with us quickly and they give information which the elder generation often hides/ hesitates to share.

Making people participate in all the participatory activities is an art. One needs to have a good communication skill and experience for that. The later comes with practice.

The participatory activities should be conducted in a place where every villager feels free to come.

Presence of educated village persons in the team makes the mobilizing process easier as those people are respected by the villagers.

Concerned NGOs should mobilize the initial process of ice breaking. That makes the entire work relatively easy.
**Vivin:**

We can compile the results of the Village Resource Mapping and Transect Walk into a Matrix—this highlights the Land/Resource Type, Current Status, Problems, Potential and Activities.

If we have a small number of Facilitators or small number of households, we should choose some Tools rather than conduct all Tools.

If we map household resources for some of the wealth classes and do income analysis.

We can combine the Seasonal Calendar exercise with Problem Ranking—the results of both exercises support each other and are very useful.

You can compile the results of the Village Resource Mapping and Transect Walk into a Matrix—this highlights the Land/Resource Type, Current Status, Problems, Potential and Activities.

For above mentioned exercise is a time consuming, which cannot be done in a small time margin.

Transect walk can be conducted in a more technical way with new devices, which can be useful for resource and social mapping.

Two days stay in the village is a different experience altogether.

We have to use new technologies for the PRA tools.

**Sunil:**

The PRA at Gudhvan village has given me better understanding of the PRA process, tools and methodology to apply at field.

Has given me insight on team building and working, and its importance while doing PRA.

I got an opportunity to closely interact with the villagers, experience their lifestyle and difficulties.

PRAs are excellent in gathering information in situations where little is known. Also, the information is primary and highly reliable as it is gathered by in-situ observation and direct interaction with the localites.

As the affected people are highly involved and are equal contributors in identifying and analyzing the problems, better picture is evolved of the situation, which will lead to
effective appraising, designing, implementing, monitoring and evaluating of development programs/projects.

An important learning is “to respect the people’s knowledge and learning from them rather than imposing decisions on them”.

The PRA activities should be fun filled so as to attract maximum participation from the localites.

The success of the PRA process depends on the availability and participation of localites in large number. So, the plan for PRA should be very flexible and readily incorporate the changes in sequence of activities/tools and timings as per availability of the concerned local group. In our case the planned sequence and timing got entirely changed as per the prevailing situations but we were already prepared for the changes.

The main problem in Gudhvan village is of water shortage and almost all other problems are linked to it. The main cultivation is of rice during rainy season from June to September. In other months, the lands are kept barren. Most of the areas are sloppy and results in rain water runoff and soil erosion. The groundwater level drops drastically during summer and also the only river dries up during peak summer. The probable solutions as also suggested by the villagers are watershed management through interventions, construction of contour bunds, check dams etc. at appropriate locations.

Also, villagers can opt for some income generating activities, viz., poultry, animal husbandry, biogas (will reduce deforestation) etc.
### Appendix A: Scripts

**Title of the Script: Resource Mapping**

<table>
<thead>
<tr>
<th>Description:</th>
<th>This Tool is used to facilitate the process of mapping the resources of a village/community by the villagers/community people.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context:</td>
<td>This script should be used when the modeling team is going to do the activity of resource mapping.</td>
</tr>
<tr>
<td>Purpose of script:</td>
<td></td>
</tr>
</tbody>
</table>
• To serve as a precursor to understand the concept of resource mapping.  
• To create a common understanding of the way of proceeding with the activity on field.  
• To have a clear idea of the preparation required, the roles to be played and the material needed for the activity. |
| Primary nature of group task: | Activity will develop a resource map of the village with help of the villagers and have an understanding of the different resources in the village related to livelihoods. |
| Time:        |  
**Preparation time:**  
• Before the activity: Around 2 hours for deciding factors to be included in the map, preparing legend sheet  
• At Site: 15 minutes to get ready all the material required for the activity according to the place where the map is to be made  
**Time required to complete steps in script:** about 1.5 hours  
**Follow up time:** Around 1 hour for finalizing the map |
| Materials:   |  
• Sample resource map, Chart paper, Color pens, rangoli (white + colored), chalks (white + colored), rough cloth (for wiping off/making corrections), pebbles, marbles, sticks, wood pieces |
| Inputs:      |  
• Checklist of questions to be asked to the community  
• Legend Sheet |
| Outputs of   |  
• A resource map of the village, to the required detail |
### Roles:
- **Model Facilitator** explains the concept of resource mapping to the community. He also asks questions/guides the process with the help of the pre-made questionnaire and legend sheet.
- **Recorder 1** follows the discussion to develop the resource map actually on ground.
- **Recorder 2** follows the discussion to make detailed notes of the issues and ideas that are emerging.
- **Recorder 3** makes a voice recording of the activity and aids recorder 1 in making the map on the ground.
- **Recorder 4** takes photographs of the activity, keeps a track of time, and looks at the overall participation of the people in the activity.

After completion of activity on ground, the same will be replicated on chart papers by the whole team.

### Participants:
- All participants (community members) those are present on this day and members of the facilitation team.

### Steps:
1. The model facilitator briefs the community members about the activity of resource mapping, its importance and relevance.
2. The facilitator demonstrates a sample resource map, and explains the technicalities such as the legends used, and the things to be put down.
3. The facilitator guides the people by suggesting them to mark up the major landmarks like the road/river, farms, grazing lands, forest area, etc.
4. When the basic structure is ready, the facilitator can ask more detailed information like the Electricity poles, Play Ground, Water harvesting structures, habitat area, etc.
5. After completion of resource map on ground, the same will be photographed and consolidated on chart papers.

### Evaluation criteria:
The activity is successful when community members are participating in the activity. A fairly accurate representation of the resources of the village is the evaluation criterion.

### Authors:
Sunil M, Apoorva G, Vivek K., Ritam S, Vivin M.

### History:
This tool has been in practice since long and is widely used to understand the resource structure in a given area.

### Revisions:
None.

### Original contribution
This is a common tool and the same will be adopted during our resource mapping process.

### References:
- Lecture notes of Professor N.C. Narayanan (CTARA, IIT Bombay)

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**Title of the Script: Social Mapping**

**Description:**
This Tool is used to facilitate the process of mapping the social physical situation of a village/community by the villagers/community people.

**Context:**
This script should be used when the modeling team is going to do the activity of social mapping.

**Purpose of:**
- To serve as a precursor to understand the concept of social mapping.
| **script:** | • To create a common understanding of the way of proceeding with the activity on field.  
• To have a clear idea of the preparation required, the roles to be played and the material needed for the activity. |
| **Primary nature of group task:** | Activity will develop a social map of the village with help of the villagers and have an understanding of the habitation pattern, institutions, socio-economic characteristics (e.g.: land-holding, livestock-holding, occupation of the families, accessibility to infrastructure) and other social aspects. |
| **Time:** | **Preparation time:**  
• Before the activity: Around 2 hours for deciding factors to be included in the map,  
Preparing legend sheet  
• At Site: 15 minutes to get ready all the material required for the activity according to the place where the map is to be made  
**Time required to complete steps in script:** about 2 hours (varies community to community, and according to the amount of detail required)  
• **Follow up time:** Around 1 hour for finalizing the map |
| **Materials:** | • Chart paper, Color pens, rangoli (white + colored), chalks (white + colored), rough cloth (for wiping off/ making corrections), pebbles, marbles, sticks, wood pieces, etc  
• Checklist of questions to be asked to the community  
• Legend Sheet (attached along with) |
| **Outputs from this script:** | • A social map of the village, to the required detail |
| **Roles:** | • Model Facilitator explains the concept of social mapping to the community. He also asks questions/ guides the process with the help of the pre-done questionnaire and legend sheet.  
• Recorder 1 follows the discussion to develop the social map actually on ground.  
• Recorder 2 follows the discussion to make detailed notes of the issues and ideas that are emerging.  
• Recorder 3 makes a voice recording of the activity and aids recorder 1 in making the map on the ground.  
• Recorder 4 takes photographs of the activity, keeps a track of time, and looks at the overall participation of the people in the activity.  
After completion of activity on ground, the same will be replicated on chart papers by the whole team. |
| **Participants:** | • All participants (community members) those are present on this day and members of the facilitation team |
| **Steps:** | 6. The model facilitator briefs the community members about the activity of social mapping, its importance and relevance.  
7. The facilitator demonstrates a sample social map, and explains the technicalities such as the legends used, and the things to be put down.  
8. The facilitator guides the people by suggesting them to mark up the major landmarks like the road/ river, and major sections of the settlement.  
9. When the basic structure is ready, the facilitator can ask more detailed information like the land holding, the number of cattle, education, etc |
<p>| <strong>Evaluation criteria:</strong> | The activity is successful when community members are participating in the activity. A fairly accurate representation of the social structure of the village is the evaluation criterion. |</p>
<table>
<thead>
<tr>
<th>Authors:</th>
<th>Apoorva G, Vivek, Ritam S, Sunil M, Vivin</th>
</tr>
</thead>
<tbody>
<tr>
<td>History:</td>
<td>This tool has been in practice since long and is widely used to understand the social structure in a given area.</td>
</tr>
<tr>
<td>Revisions:</td>
<td>None.</td>
</tr>
<tr>
<td>Original contribution</td>
<td>This is a common tool and the same will be adopted during our social mapping process.</td>
</tr>
</tbody>
</table>
| References:      | • Lecture notes of Professor N.C. Narayanan (CTARA, IIT Bombay)  
                   • Inputs from PRA workshop conducted by Kalyan T., Seema R. and Prof. Narayanan, February 2011 at CTARA Lab. |
## Title of the Script: Transect Walk

<table>
<thead>
<tr>
<th>Description:</th>
<th>This Tool is used to physically judge the state of resources viz. soil, water, forest, agriculture by walking a pre-determined path across the village.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context:</td>
<td>This script can be used whenever the modeling team is going to do a transect walk.</td>
</tr>
<tr>
<td>Purpose of script:</td>
<td>• To serve as a precursor to understand the concept of transect walk. • To create a plan of the way of proceeding with the activity on field.</td>
</tr>
<tr>
<td>Primary nature of group task:</td>
<td>Activity will develop a transect map of the village with help of the villagers and have an understanding of the state of resources in the village with respect to the elevation.</td>
</tr>
</tbody>
</table>
| Time: | **Preparation time:** • Before the activity: Around 2 hours for deciding factors to be included in the map, Preparing legend sheet • At Site: 15 minutes to get ready all the material required for the activity according to the place where the map is to be made  
**Time required to complete steps in script:** about 2 hours per transect walk  
**Follow up time:** Around 1 hour for finalizing the map |
| Materials: | • Chart Paper, sketch pens, GPS tracker. |
| Inputs: | • Checklist of questions to be asked to the community • Legend Sheet |
| Outputs of this script: | • A transect map of the village, to the required detail  
• Increased understanding of the state of resources and possible correlations existing between them. |
| Roles: | • The team chooses an appropriate transect path that well-represents the area and covers all types of resources of the village.  
• Model Facilitator explains the concept of transect walk to the community.  
• The team and the community members walk along the transect path and the facilitator gathers information about various resources that can be seen on the way.  
• Recorder 1 follows the discussion to develop a draft of the transect map.  
• Recorder 2 follows the discussion to make detailed notes of the issues and ideas that are emerging.  
• Recorder 3 makes handles the GPS tracker to get information about elevation, slope, etc along the transect path.  
• Recorder 4 takes photographs of the features observed and discussed during the walk and keeps a track of time.  
After completion of activity, the transect map will be finalized on chart papers by the whole team. |
| Participants: | • All participants (community members) those are present on this day and members of the facilitation team |
| Steps: | 10. The model facilitator briefs the community members about the activity of transect walk, its importance and relevance.  
11. The facilitator demonstrates a sample transect map, and explains the technicalities such as the legends used, and the things to be put down. |
<table>
<thead>
<tr>
<th>Evaluation criteria:</th>
<th>The activity is successful when community members are participating in the activity. A fairly accurate representation of the resources of the village is the evaluation criterion.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authors:</td>
<td>Sunil M, Apoorva G, Vivek K., Ritam S, Vivin M.</td>
</tr>
<tr>
<td>History:</td>
<td>This tool has been in practice since long and is widely used to understand the resource structure in a given area.</td>
</tr>
<tr>
<td>Revisions:</td>
<td>None.</td>
</tr>
<tr>
<td>Original contribution</td>
<td>Inputs from the GPS data will help in making a more accurate profile of the elevation of the transect path.</td>
</tr>
<tr>
<td>References:</td>
<td>• Lecture notes of Professor N.C. Narayanan (CTARA, IIT Bombay)</td>
</tr>
<tr>
<td></td>
<td>• Inputs from PRA workshop conducted by Kalyan T., Seema R. and Prof. Narayanan, February 2011 at CTARA Lab.</td>
</tr>
<tr>
<td></td>
<td>• Information from PSIA source book available at web.worldbank.org</td>
</tr>
</tbody>
</table>

**Title of the Script: Focused Group Discussion (FGD)**

**Description:**
This tool is used to qualitatively assess/understand feelings, attitudes, perceptions, reactions and emotions about a particular issue from a homogeneous group of people. The tool focuses at generating a large amount of complex data in a relatively short period of time.

**Context:**
This script should be used when the team is going to do a FGD.

**Purpose of script:**
• To understand the concept of FGD and facilitate its implementation at site.

**Primary nature of group task:**
The activity will be carried out by interacting with a homogeneous group of people to know their views and perceptions on issues concerned with them. The FGD will try to probe and help the targeted group to explore the issues in depth.

**Time:**

**Preparation time:**
• Before the activity: Around 2 hours for deciding possible topics to be included in the discussion.

**At Site:** 15 minutes to get together the targeted group

**Time required to complete steps in script:** about 1 hour

**Follow up time:** Around 1 hour for analyzing and documenting the inputs obtained from the discussion.

**Materials:**
• Chart paper, Color pens, chalks, voice recorder, notebook, pen

**Inputs:**
• Checklist of topics/ questions to be discussed with the community

**Outputs of this script:**
• A understanding of the perceptions of the particular group about their issues
### Roles:
- Model Facilitator explains the concept of FGD to the community and opens up the discussion on the perceived issues.
- Recorder 1 follows the discussion and notes down the points arising out of the same.
- Recorder 2 makes a voice recording of the activity, takes photographs of the activity, keeps a track of time, and looks at the overall participation of the people in the activity.
- After completion of activity, the inputs obtained from the same will be documented by the team.

### Participants:
- The homogeneous target group and members of the facilitation team.

### Steps:
19. The model facilitator briefs the community members about the activity of FGD, its importance and relevance.
20. The facilitator develops a rapport with the group, opens up the general issues and tries to involve all the participants in the discussion.
21. The group will be probed and helped by the facilitator to address their issues systematically and in depth.
22. The opinions of the members are noted/recorded and documented.

### Evaluation criteria:
The activity is successful when community members are participating in the activity. An open, clear and in-depth communication of their issues and an active involvement of all the members of the group is the evaluation criterion.

### Authors:
Sunil M, Apoorva G, Vivek K., Ritam S, Vivin M.

### History:
This tool has been in practice since long and is widely used to understand the issues of a particular group.

### Revisions:
None.

### Original contribution
This is a common tool and the same will be adopted by the team.

### References:
- Lecture notes of Professor N.C. Narayanan (CTARA, IIT Bombay)
- MicroSave-Africa’s Focus Groups and PRA Tools obtained at www.ideasnet.org