Participatory 3 Dimensional Modeling (P3DM) in Gondoshi Village, Akole Cluster

The following report describes how Participatory 3 Dimensional Modeling (P3DM) can be conducted as an introductory process in villages. We visited Gondoshi Village from the Akole cluster on the 17th and 18th February 2013. It was the first time the village had participated in any WOTR activity. This report explains how the two day training was organized.

17th February 2013

The WOTR team was in place and ready to start the training by 10am. We were able to use the village temple, an open fronted building in the middle of Gondoshi. Around 50-60 villagers, mostly men, arrived to hear our introduction.

Introduction of work by Rajesh-

Rajesh introduced the team to those present and produced geographical information about the village. He illustrated the concept of three dimensional maps by placing 3 objects on the ground and asking participants to draw them from different angles, but always from a height. Through this activity, the villagers were able to understand the concept of 'aerial view' perspectives.



Villagers were then given the task of constructing a map of the village and its surroundings. They were provided with a number of unsorted corrugated cardboard sheets that had been pre-cut according to the contours of the village landscape. The sheets were brought outside where there was more space to work

in. It took them about an hour to construct the model, with some tips and hints along the way. They soon realized that each sheet was numbered and marked. Once the model was completed, it was brought back inside for the next stage.

Meanwhile, Amol and Sachin had set up an overhead camera in the rafters that would provide a vertical (aerial) view of the model.



Building the model-

Under the guidance of Rajesh, Vineet, Amol and Sachin, the villagers returned the loosely constructed model to the temple and started to glue each sheet in place. At this stage, the model resembled a 3D representation of the contour map fixed to the wall.



The following is a brief guide to the steps required to construct the P3DM:

1) Selecting, placing and pasting of contour (cardboard) boundaries one above the other.



2) Pasting of white paper on to the glued cardboard sheets creating a more realistic facsimile of the sloping terrain.



3) Completed model with roads and field boundaries added by using coloured wool and pins.



4) Model marked with village boundary, roads, wells, springs, temples, human settlements, agricultural area, irrigated areas, forest area, waste land and drainage.



5) Final Model



School DRR for the 5th, 6th and 7th std. students of Gondoshi School by Sachin-

During the process of constructing the model, many of the village children were very interested in what was going on. Sachin took this opportunity to introduce the children to the concept of Disaster Risk Management (DRR). They followed him back to the school house where they discussed the topology of the village, the flora and fauna and the agricultural biodiversity of the Gondoshi.

They were asked if they could remember any natural disasters that had taken place in the village. They mentioned floods, earthquake and droughts. We asked if there was a drill for earthquakes, but they seemed

not to know what they should do. So, after some discussion, we showed them some steps they could take and identified a safe place in the playground where they could muster in the event of future earthquakes. We then conducted a mock drill with students from 5th, 6th and 7th Standard.



18th February 2013-

Team Building Exercise:

On the 18th, we started the day with a team building exercise called 'Lifting the Paper Roll'. Villagers were keen to take part. We told them to support the paper roll on top of their fingers and together lower the tube without losing contact. They found this almost impossible to do and much laughter ensued. The important message here was "while doing any task/work in the village, they need co-ordination and unity of purpose to be effective".



Step 6-

Due to unforeseen circumstances, many of the women of Gondoshi were unable to attend the first day of training. They came on Sunday and made a huge contribution to the accuracy of our P3DM. Their knowledge of wells, springs and forest was much more precise, as it was them who collected water and wood from the most convenient sources.

Discussion about history of village-

We tried to get a village history starting with the origin of the village name, but no-one present had a clear idea. This may have been because no elders were there.



Points came out off discussion-

 After discussion about crop history, we learned that they grew rice, gram, Nachni, warai and a few pulses as traditional crops. In the last 10 years wheat and groundnut have been introduced. They tend to prefer wild (local) varieties over hybrids. 2) Land use: According to the women, 75% of the village land was earlier covered by forest. During that period there were hardly any hamlets around the main settlement. Forest land has gradually become encroached upon for agricultural use, resulting in a proliferation of hamlets. Most of the forestry was privately owned and therefore there was no protection from encroachment. The women believe that only about 25% of the forest remains today.

Graphical presentation -

Based on the information given by villagers, we plotted a graph of forest depletion cover over the last 30 years. Villagers didn't have any idea what the rate of forest depletion was. So we assumed that it has depleted gradually at a constant rate. After agreeing the present condition of forest cover, we asked them if they could predict what will happen to the forest cover in the next twenty years. We also asked what they would like to see happen over that same period.

In response to this question, they were able to predict that all forestry would be gone in 20 years. What they would prefer to see happen is the restoration of forest land to its previous condition.



Our graph helped them to understand the gap between the likely scenario of total forest depletion and their expectations of restoration. Rather than providing solutions, we left them with this question: "What can be done to reduce the gap"?

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