

# Account of a Participatory 3D Modelling Exercise in Burmu, Ranchi, Jharkhand, India

7<sup>th</sup> - 13<sup>th</sup> of September 2009

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*Total number of participants: 42*

## INTRODUCTION:

Community mapping is a process of coming together in order to identify the resources available in the community or village. A person residing in their village is always aware of the resources present in the village. Especially, the Adivasis<sup>1</sup> who are known to be the son of soil, who not only acquire the land but the minerals available as well. Their lack of knowledge regarding their lawful rights makes them helpless in today's world. Their rights are easily violated by the multinational companies who enter into the village and exploit them mercilessly.

Coming together in order to challenge the Government and Multinational companies to say 'this is our territory' or 'this is our village boundary' becomes difficult as they are not always unified and it is even more difficult to prove without the help of 3D mapping. Therefore 3D Map is the only tool which can help Adivasi to come forward and fight for their territory and demand the Government for the protection of their land, in an articulate and validated way.

3D Map is not like other maps which are made in the papers and thrown after use; it is a map which indicates all the resources available in the village by the help of tracing and sticking the selected contours in the Map. The allocated resource in the map stands still. Colors applied in the map helps to identify several resources available in the village. Additionally, one can give exact locations and make sure things are precise and organized to prevent any miscommunications or confusions.

## ACTIVITIES

We started off the seven day workshop with an introductory speech given by **Sanjay Basu Mulik**, he introduced the things we would be doing in the coming seven days from learning the various uses of GPS to 3D mapping. Following Mr. **Basu Muliks** speech, several other members spoke, such as: **Peter Kuria** from Siemenpuu Foundation, and **Roy David** convener of the National Adivasi Alliance. Shakti and Sunita served as the translator for Hindi to English and English to Hindi.

## ACTIVITIES OF THE 1ST DAY (7TH SEPT)

After getting the gist of 3DMapping, the participants were divided into four groups, the group comprised of participants belonging to several states like Jharkhand, Chattisgarh, Rajasthan, Orissa, Tamilnadu and Karnataka.

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<sup>1</sup> Adivasi is an umbrella term for a heterogeneous set of ethnic and tribal groups claimed to be the aboriginal population of India. They comprise a substantial indigenous minority of the population of India. Source: <http://en.wikipedia.org/wiki/Adivasi>

## **Story Telling**

Each group was given one picture and was asked to narrate a story based on the given picture. Each group were asked to make a five minute story in which every person in the group had to tell one minute of it, and the story should be linked from first person to the last person. The story could be of social problem, community problem or personal problem depending on the group.

One hour was allotted to each group. Because of time constraints we only got to see two groups (Tamil Nadu and West Bengal) and saw the rest of the groups the following day. It was interesting to observe the group; as each group had participants from several states. This was a great way for them to know and understand each other as it was a seven day workshop, this activity allowed them to feel more comfortable with one another which would be crucial in the next week. Though some groups had a language barrier, they still managed to cope and participate in all the activities.

### **The purpose behind story telling:**

In day to day life we find ourselves surrounded by one another's problems. For instance we can see the social problems existing in rural areas, and we can clearly see that it is not limited to rural areas but extends to cities too. We only look to the current problem but we fail to find its root causes, because social problems do not exist in isolation, it is interlinked to several other problems too. Finding solutions to any problem needs a proper understanding and analysis of a given situation. Therefore story telling was not simply making a story but a meaningful story which highlights the reality needed in order to look at any problem.

After storytelling, a documentary on CyberTracker and the use of GPS equipment was shown to the participants. Before going to the field it was necessary for all the participants to know and understand what a GPS is and the importance of it and how specifically it would help them.

### **Screening of documentary**

Screening of the documentary on cyber tracking and the use of GPS equipment was approximately fifteen to twenty minutes, the main purpose of screening the documentary was to show the use of GPS equipment in the field, how to find the altitude and latitude of a particular place. It was very important to show and assist the participants in understanding how useful GPS's are for 3D Mapping. Next we showed Google Earth, in order to help them find out the areas where they reside and how it can be easily seen on Google Earth.

### **Drawing of a village map**

Before starting the process of 3D mapping it is essential to know and find out the boundary where of the land on which we reside, without knowing location or boundary it is impossible to draw a village map. Boundaries help individuals to describe the village profile and the resources available within. Later the session continued by presenting each groups village map. The main purpose behind drawing a village map was to identify what resources are available in their identified villages, and what colors to use while representing several resources like Mountains, houses, river, schools etc.

## **ACTIVITIES OF 2ND DAY (8TH SEPT)**

We started the day by finishing up the discussions of the maps which we could not do the day before, the states that presented were: Kerala, Rajasthan, Karnataka, and Orrisa. Before leaving we discussed scaling of maps and how to properly change life size calculations and make them consistent and accurate for maps this was explained by **Mr. Swarup Saha** from West Bengal and **M. Sri. Jayanthi** from Tamil Nadu. Peter then proceeded to explain what we are going to do in the next village and how we are going to start working with the 3D maps. Then we proceeded to travel towards the village called Burmu in Ranchi to put our theoretical knowledge into practice. During the three hour journey the groups discussed what they would do for their maps and planned things out. In the evening after arriving to our destination we gave a task to all the four groups.

1. Mention what are the materials required for 3D Mapping.
2. Describe the processes of 3D Mapping.

Each group was allotted one hour time to discuss within their group. After the one hour was up, each group came up for their presentation. Also, in the second day JJBA, the people hosting the workshops arrived after being at another workshop and we gave them the revisions and updates, telling them of the activities completed and perhaps how to slightly alter some of the activities to come.

### **Village session**

The instructions and welcoming speech was done by **Suryamani Bhagat**, she explained where we could go, what to do, where to get water, where things were, etc. this was her village and she was familiar with it. Before starting sessions everyone sang a song from their state to start the session. Again, they were divided into four groups and started getting together all the information they needed in order to 3D map. They wrote down all the things that were available in the village and should be made into the 3D map, essentially they made a draft of all the things that would go into their 3D map. In the evening each group shared the drafts that they made and the lists of all the things that they would be required to put in their 3D maps. Noting all the resources in ones village, such as natural resources, costly plants, medicinal plants etc. was a bit of a controversial topic, as some people brought up the fact that if we were to list all of the valuable resources available in our villages people would come from the outside and try to further exploit the people or take advantage of the resources. But at the same time it is important to be accurate and if we are going to leave things out of the maps for the sake of protecting our village there is no point in continuing with the maps. Additionally, we discussed the importance of preserving traditions and how if there is knowledge that has been passed down for generations, if we lose it we cannot regain it. Any of the pictures people had prepared discussions for and didn't get to present were finished in day two.

### **ACTIVITIES OF 3RD DAY (9TH SEPT)**

Again the participants were divided into four groups, each group got the same work but in a different direction. Each group moved to one of the four directions: East, West, North, and South. The task was to move 300m from the centre point identifying what resources are available e.g. a well, agricultural field, kacha road, herbal medicines, forest etc.

Thirty minutes were given to each group. After thirty minutes, two participants from each group were asked to come together and draw a single map that reflected their moving around and identifying the resources available in the field. For cross checking Suriyamani di from the villages itself was called to check out whether the map was correctly drawn by the participants. One group started learning GPS in the field and how they could get data to show in the map. Other groups got the task of recording and taking pictures, learning both camera and video camera. Each participant had to make a one minute story which was recorded by one of the participants from the group itself. For many participants it was the first time for them to handle a video recorder, telling stories and recording increased their level of confidence. It was the first time handling a camera for many of the participants especially the participants who came from the community/village. In the afternoon of day three there were three questions for all the members who attended the workshop:

1. 1 What did you learn with this story?
2. How will you link the story your working village for problems
3. How will you connect all the learning with your village?

Afterwards one by one, all the members shared their personal answers to the questions and all the things that they had learned in the past few days, many had not seen GPS before and did not know how to work the different equipment, overall people were very happy and were excited to share their knowledge and teach people in their community and have them help work with the GPS and other such technological tools. After all this, Peter gave thanks to all the participants in Hindi, which translates into Dhanyavad.

### **ACTIVITIES OF 4TH DAY (10TH SEPT)**

#### **Transect walk**

Activities carried out in day 4 were quite similar to the previous day, dividing the group into three, one member of the group had to use the GPS, another member handled cameras and the third person handled the video recorder. The use of these tools started from the place we stayed and continued through the climbing of mountains which were nearly four to five km away where we stayed. Walking towards the mountain each group did their best to do what was asked. The purpose behind this walk was to capture what resources are available within the village e.g. sacred place, schools, dams etc and recording the one minute story from any villagers or recording the emotional moments or something meaningful to that specific person.

Cutting across thick bushes, helping each other to climb the mountains gave the opportunity to understand each other's in better ways, building trust, and showing what unity means and the importance of it, going to work in any settings we cannot move further without the support of villagers or community.

#### **Later in the evening:**

The process of 3D Mapping starts from here. All participants were called together to select four supervisors who would involve all the participants to speak and take the decision collectively without any biases before proceeding towards making of 3D mapping.

As per the group's decision, the model of 3D Mapping was suggested to be drawn on a chart paper in order to cross check whether the contour selected was correct or incorrect; while cross checking, groups were able to find four wrongly identified contours.

#### **ACTIVITIES OF 5TH DAY (11TH SEPTEMBER)**

Due to the four wrongly identified contours, the day began by correcting and tracing the contours onto the base map. However, before mapping we had all the participants decide how they will start working, what they will carry, will there be a leader, how many people on which activities etc. This was all decided by participants. The participants broke off into groups three and started tracing the different degrees of the contours onto the base maps. Then they began cutting eighteen pieces of contours including several duplicate pieces which took the whole day. Though it was a little difficult to identify each and every contour, after putting in so much effort the participants were ready with all the completed contours. The only work left was the constructing of the 3D Map by pasting contours and putting them according to the map.

#### **ACTIVITIES OF 6TH DAY (12TH SEPTEMBER)**

This was the second to last day of the workshop; all the participants were busy cutting the duplicate pieces of the original contours, putting them back together and pasting it on the map. They were divided into two groups, one group started cutting sheets while the other was cross checking to make sure everything was accurate, and after confirmation they started setting it down and mapping with the 3D. It nearly took seven to eight hours to put all the contours in the map, sticking the papers together with the help of fevicol around the contours. All of the participants worked very hard until 2 in the morning. Finally the 3DMap was complete; the only work left was to color in the map.

Till this moment everyone could see and recognize their efforts and learning of what 3D modelling means, how it can be a very essential tool in the demand for their territory and rights from the Government. The Adivasi people need to come together and fight against the exploitation, oppression, and injustice occurring each and every day.

### **ACTIVITIES OF 7TH DAY (13TH)**

After all this work from the previous night they decided to cross check with the locals and were happy when the locals were satisfied that everything was how it should be. 28 out of the 38 original participants left the field by 12 noon. The only work that was left for the final day was putting the colors in the map. The 10 people who stayed behind longer completed coloring the map. Before leaving they managed to finish the coloring of the map which also marked the completion of the entire project.

### **The best part of the workshop was:**

One of the main tools for coming together in any workshop and creating feelings within the group was the cultural night. Some of the participants were introverted, but as the cultural programmes began, they came forward to participate and showed their talent which was a clear indication that they felt comfortable in participating in all of the activities. The next day, the same participants who seemed to be introverted opened up and tried to mingle with the group. Participants came from various states with the goal of learning, and exchanging their views and ideas for the betterment of tomorrow. Taking away abundant knowledge and the ability to apply it to their own villages and making people feel empowered not only with the help of 3D Mapping but also acquiring all the information and rights which are lawfully due to them, according to the constitution.

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