



SUBMITTED BY

GUJARAT LILA TEAM  
MENTOR  
SUSHATHA KUMAR MAHAPATRA



# **Team Members**

**Ajay R Krishnan**

**Akshay Rajan**

**Arpith Aravind**

**Arun Rajan**

**Avinash Nair**

**Bibin Manuel**

**Hari Sankar K S**

**Karthik S Nair**

**Rahul H V**

**Rohit R Krishna**

**Sarath Nair**

**Sidarth Sankar**

**Varun Rajan**

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## Executive Summary

The report reviews the demographic, cultural, political and educational state of the village – Nani Borvai. It elaborates the tasks accomplished as part of the ‘Live in Labs’ program by the team members, such as providing alcohol awareness, taking surveys and tablet training provided to the children. Report also features the village meeting conducted in the village under the guidance of village sarpanch. It also contains the various challenges faced by the villagers currently. Also the business models which will provide panacea for the current challenges are listed. The report then examines the possible paradigm shift that will happen in the village if these business models implemented.

## Introduction

The objective of the visit was to get an exposure to the real life problems of the people living in our villages and to trigger a desire to make a personal contribution towards their welfare. Applying business education to devise a planned intervention will provide us with a real time experience of the possible implementation issues and this was a great learning experience. The village that we chose was Nani Borvai as part of Live In Labs(LILA). Borvai is a small village in Dhansura Taluk in Aravalli District of Gujarat State, India. It comes under Borvai Panchayath. It is located 43 KM towards South from District head quarters Himmatnagar, 68 KM from State capital Gandhinagar. Borvai is surrounded by Bayad Taluka towards South , Modasa Taluka towards North , Talod Taluka towards west , Malpur Taluka towards East. Gujarati is the Local Language there. Population of Borvai is 1160 with 613 male and 547 female. Nearest city to Borvai is Ahmedabad and it is well connected to Ahmedabad by road.

## Secondary Tasks Completed

Over the course of our stay in the village, we were able to accomplish all the tasks that were assigned to us. We were also able to develop various business models which could help them develop their village. Following are the tasks accomplished:

### Tablet training

Tablet training was provided on 23rd and 24th September 2015, at Nani Borvai Prathamik Shala. Training was provided to children below 10 years of age. Since education on English alphabets and number system starts only by 5th standard according to Gujarat education system, we faced issue while teaching children. But children ebulliently participated in tablet training on Hindi alphabets.



## Alcohol Awareness

Alcohol awareness campaign was done on children above the age of eleven. It was done in three steps.

- Pre survey on alcohol awareness
- Skit on consequences of alcohol consumption
- Post alcohol awareness

Questionnaire on alcohol awareness were created in dialect Hindi. Students of above mentioned age group were surveyed based on the prepared questionnaire.

After the survey, we conducted the skit on a child getting deceased as a consequence of excess alcohol consumption. The skit emphasizes on developing the attitude of alcohol consumption due to bad influences from peer. Skit was presented before children of all age group.



Post the skit we again conducted the same survey on students of age eleven and above. We got a satisfactory outcome; students became a bit more aware about the consequences post the awareness skit.

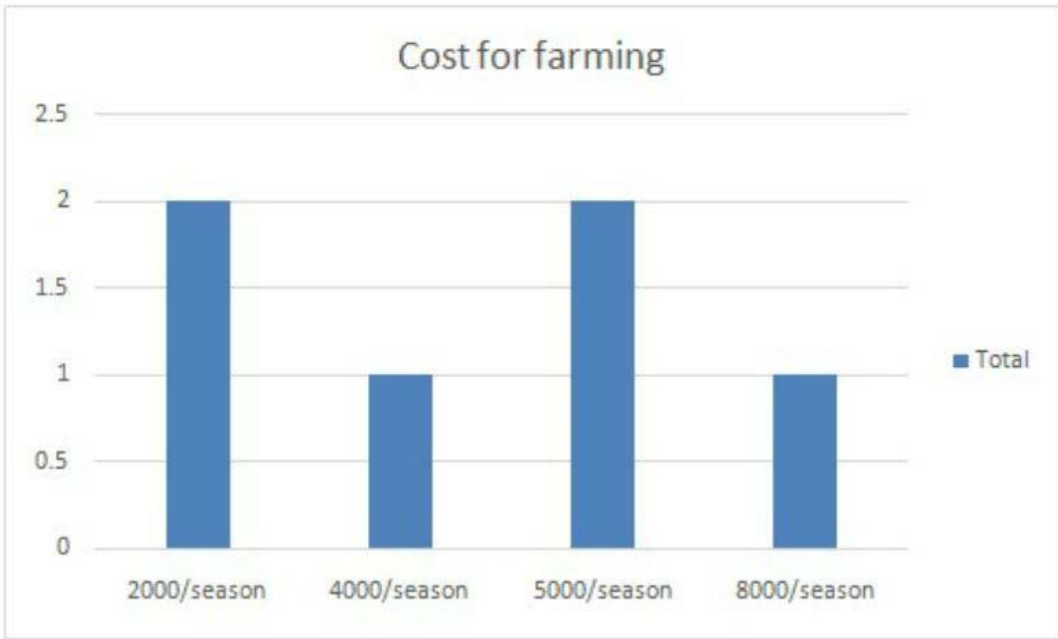
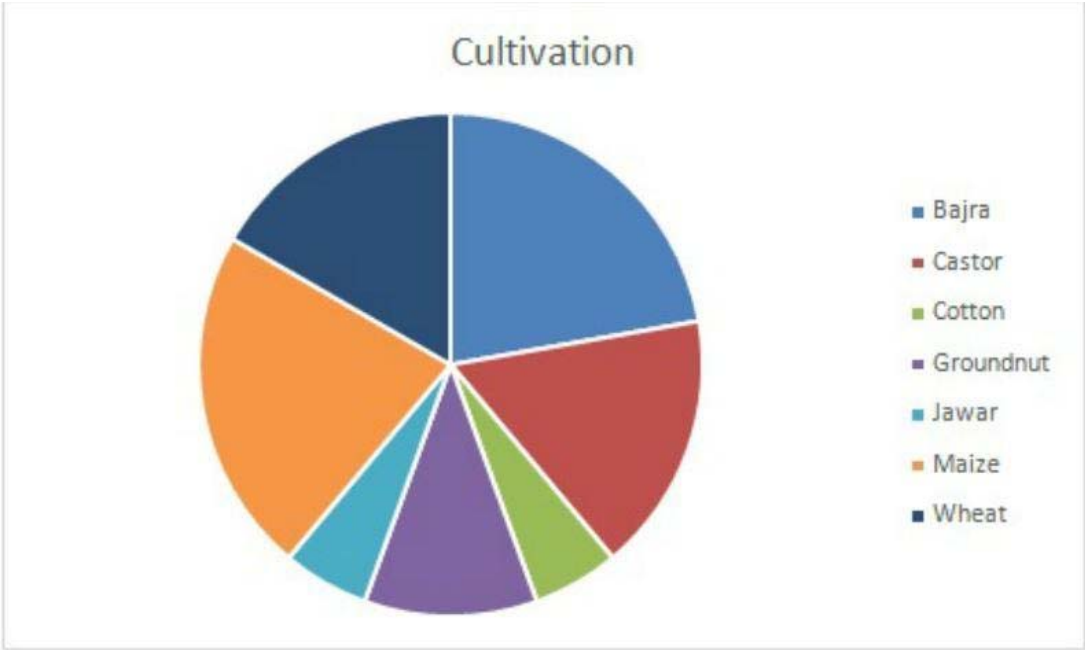
### Surveys Conducted

As far as surveys are concerned we have conducted mainly three surveys.

#### Agricultural Survey

In agricultural survey we enquired about the different kinds of crops they are cultivating, the way of selling their products, how much is their returns etc. Interaction with the villagers helped us to understand that most of the crops which they are cultivating are used for household purposes rather than selling it in the market. Also we came to know that they are practicing crop rotation in every different season.





**Adolescent health Survey**

Since we were a group of 13 boys we were unable to conduct the adolescent health surveys for girls. For boys we enquired about the eating habits and sanitation. From the interaction we understood that adults used to have food twice a day whereas for children its thrice a day.

### Alcohol Awareness Survey

In alcohol awareness we have conducted two surveys 1)Pre survey2)Post survey. By conducting pre survey we understood that the people, especially children are unaware of the side effects of alcohol .One of the most important problem was that, alcohol is easily available in the village. People have easy access to it. We conducted a skit on alcohol awareness in the local school and a post survey has been conducted. From the post survey we understood that the understanding of the villagers about the side effects and the diseases that can be caused by using alcohol has increased to a considerable extent.



### Village meeting

We conducted a Gram Baitak (village meeting) in the village, on 23rd September. Invited all the village people and organised the same. Gram Baitak was conducted in the presence of Amrit Bhai (The local Coordinator), the village head, and Temple Pandit. We discussed the following in the meeting:

- Usage of cow dung and cow urine as manure.
- Awareness on education.
- Various government schemes which they could avail from Dena bank.
- Various post office schemes they could avail.
- Awareness on diseases caused due to open defecation.
- Awareness on various cultivation methodologies, which they have not followed.



## Issues that were identified

Based on our experience of staying in the village and based on our interaction with the villagers, the major issues that the villagers are facing are as follows

### Cleanliness

Waste management is one of the main problems in NaniBorvai. Almost all the houses in the village have cattle shed very close to the house. The cattle sheds are very badly maintained and are not at all hygienic and this could lead to many diseases. So one of the main challenges that we have is to find an effective way for waste management and on educating the villagers about the importance of waste management

### Agriculture

Maize is one of the main crops that is grown in NaniBorvai, but they use maize for their consumption and the rest is used as cattle feed. Maize is not sold commercially by the villagers in spite of maize having a good market. Bajra, Jovar , Maize, ground nut, oil seeds and Wheat are the crops that cultivated in NaniBorvai.

### **Middlemen in Sales**

Few of the villagers sell milk directly at the collection centre and get the fair price for milk. However other villagers sell it to the middlemen and they get lesser price per litre of milk. This is another problem which the villagers are facing.

### **Education**

The awareness about education is very low in the village and most of the villagers are not keen of sending their children for higher education. Bringing in awareness about the importance of education is one of the daunting tasks that we face as a team. The villagers are also unaware of the reservations that they are eligible for in the village.

### **Government Schemes**

The villagers are not aware of the welfare schemes by the Central and State governments. Bringing in awareness about the schemas and educating the villagers on the importance of joining these schemes will be high on our priority during the next visit.

### **Illegal brewing of Alcohol**

Though alcohol is banned in Gujarat, illegal brewing of alcohol is very common in the village.

## **Suggested Solutions and tentative Plan for Lila 2**

Based on our understanding of the village we recommend and also plan to implement the following ideas.

### **Cow Urine Distillation**

Nani Borvai has good supply of cow urine and the villagers could use the same technology used for brewing liquor to purify cow urine and if marketed effectively the villagers can earn good revenue from the same. We would be doing a set of distillation with cow urine before our next visit, and then if successful, we would like to pass on the technology to the villagers so that they will be able to produce it in the village. We are also working on finding a brand

name and a label and package design as well. We did visit the place where illicit liquor is being distilled and have also taken note of the process used for the same. They are currently using the double distillation method (The method used by them is high energy consuming and not the optimum method). And based on the limited research that we did on cow urine distillation, it is the same distillation method used for distilling of cow urine. So we will be working on providing optimum instruments with minimum energy wastage for distilling of cow urine. We are also trying to implement methodologies which will make sure that the equipments work only for cow urine distillation and not alcohol distillation based on the temperature difference and possibly have sensors (This is an idea and we will be working with people from engineering for the feasibility of the same)

### Fertilizer from Cow urine and Cow dung

We have come across a methodology used in Kerala by which we can convert cow urine and cow dung into valuable fertilizer. We would be testing this methodology and if we get help from the agriculture department, we would also test the effectiveness of the fertilizer produced and we intend to educate the villagers on this process, so that they can use the cow dung and cow urine that is easily available in the village to create fertilizer. The villagers are currently buying urea for their agriculture purpose and based on our research in the above mentioned process, the fertilizer that is created is very high in urea content. The only other raw material required for preparation of this fertilizer is ground nut fodder. The process for preparing manure from cattle waste and ground nut fodder is as below.

#### *Process:*

In a bucket equal quantities of cow dung and cow urine are mixed. To it 250 grams of ground nut fodder is added and mixed thoroughly. After which it is kept closed for 1 week. After a week the mixture gets fermented. A cup of the mixture is taken and diluted it 1 bucket of water and this can be used as fertilizer. Care must be taken to make sure that before pouring it under the plants, make sure that the soil under the plants are loosened up and also not to pour it directly under the stem as it contains urea.

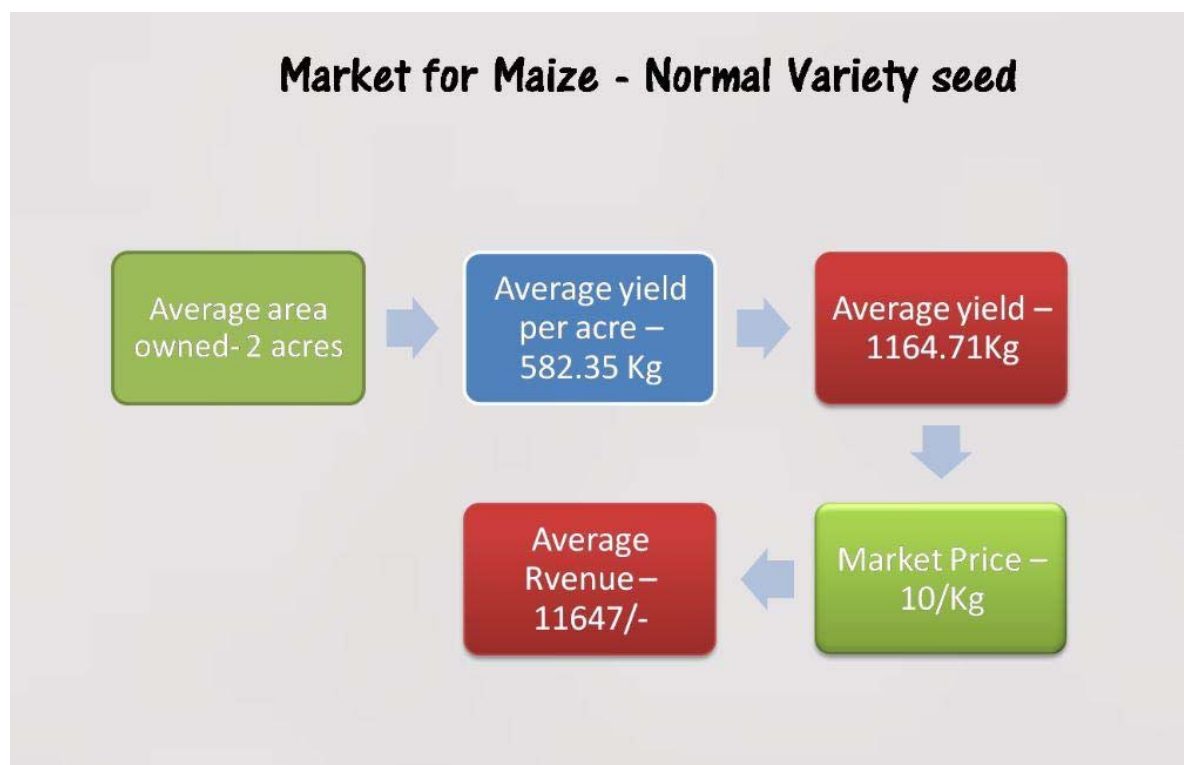
### Bio Gas

Bio gas plant can be installed in the village. This will help in solving the issue waste management as well cater to the energy needs of the village. We plan to suggest this idea

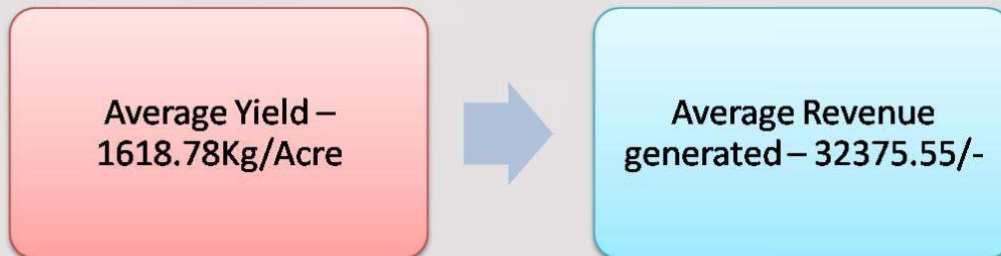
and if provided with the funding we can help in implementing the same in the village during our visit in December.

### Market for Maize

The villagers are currently not selling the maize that is produced commercially. We have conveyed to the villagers during the village meeting about the advantages they could gain by selling the excess maize rather than using it as cattle feed. We are working on designing and implementing a model, where in high quality maize (preferable sweet corn) is produced in the village and is sold to the dealers in Ahmedabad. We have done our basic survey for the same and have also collected the required contact details. During the course of this trimester we plan to research further on this and come up with the optimum solution.



## Gujarat Anand Yellow Hybrid Maize



### Value Add products from Milk and Maize

We are also working on identifying the value add products that could be created from Milk and Maize (like paneer, corn flour etc) by which the villagers can get better returns from their products. These products will also have better shelf life and hence less constraint on the villagers. We will be doing a market research to make sure that there is demand for these products in Ahmedabad or other nearby places.

### Sale of Milk

We have noticed that few of the villagers sell milk to the middlemen and not directly at the milk collection centre. At the milk collection centre, they are paid based on the fat content in the milk. The standard rate by the milk collection centre is 5 rupees/ litre for one unit of fat content. So for cow milk (which usually has fat unit ranging from 4-5), per unit the villagers get around 20-25 rupees per litre. However this amount is reduced when collected by middlemen. We have educated the villagers during the village meeting to directly sell the milk at the collection centre. We have also visited the collection centre and spoke to the head of the collection centre on the process of enrolling new members. To enrol themselves as members of the collection centre they will have to create a new bank account and fill an application to become the members of the collection centre. During our visit in December,

we intend to enrol all the non-members as members of the collection centre. The collection centre is very close to the village (About 1.5 kms) as well.



### Awareness on Government Schemes

During our interaction with the villagers we have noticed that the villagers are not aware of all the schemes by the central and state government. We have explained on the importance and the benefits of each of them to the villagers during the village meeting and also plan to have a set of videos and couple of skits played to the villagers (we would be preparing the videos and skits) which will educate the villagers on the importance joining the schemes. And towards the later half of our visit we will be helping the villagers join the scheme as well. Most of the villagers do not have aadhar card and this is also high in our priority list.

### Alcohol Awareness



We performed a skit on alcohol awareness and also showed a video clipping in the school to educate the school children about alcohol and its harmful effects. The skit and videos did have a powerful impact on them. We intend to do the same for the entire village during our next visit. If the idea of distilling cow urine is successful, that will also help in reducing the number of people involved in distilling alcohol.

### Awareness on Education

The villagers are not very keen on education beyond 12th Standard. One of our main tasks during the visit in December would be to bring awareness among the villagers on the importance of education and also on how they can use the ITI which is located very close to the village.

### Problems Faced by us

- We were uncomfortable with the accommodation provided initially. We found an army of frogs inside the room. At night frogs jumped over our head. So was little uncomfortable sleeping on the floor. But later villagers arranged 5 beds, which satiated our need.
- Since the bathroom was filled with snake scales, we were scared to use it.
- For water, we used to fill an outside tank, which at times, without current would not be filled. So we faced difficulty for water, if current was not available.
- Village people considered us as people from the Amrita Create, so, many approached us seeking changes which required budgeting at the village.

### Lessons learnt

- We have a much better living condition and we are really among the blessed lot.

- Even though we endured hardships while staying at the village, we realized that it was possible to stay away from all the luxuries.
- Stay at the village taught us to rely less on electronic virtual media and, more on outside world.

## Conclusion

LILA – 1 was indeed a learning experience for us. We learnt a lot from the villagers and it was indeed a enriching experience. We look forward to visiting the village again in the month of December where in we would get a chance to implement the ideas suggested by us.