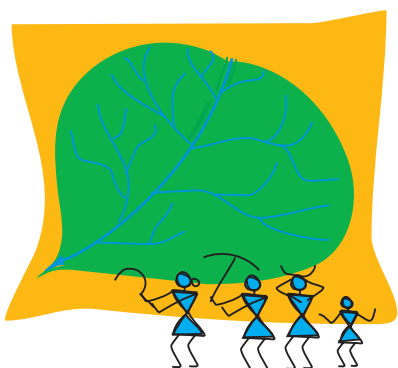




# Assesing Social and Gender Equity in the Water Sector



**SOPPECOM**



**GWA** GENDER AND  
WATER ALLIANCE

# Assessing social and gender equity in the water sector<sup>1</sup>

---

Structural inequity is one of the less addressed areas in the water sector. Inequities in water access, resulting due to caste, gender and class locations have not been sufficiently highlighted in debates and discussions around water policy and practice. Much of the water discourse is dominated by issues of scarcity and conflicts with little analysis of the social composition of the water sector and the implications that has on aggravating scarcity and conflicts.

To understand the implications of social inequities in the water sector it would be important to unpack its social composition in terms of who decides, who benefits, who does the menial work etc at the micro, meso and macro level. There has been considerable amount of anthropological and feminist work, which has tried to give us a nuanced understanding of the gender disadvantage in the water sector, however there is very little that looks at masses of data that looks at gender and its intersections with class, caste, ethnicity etc

The social and gender equity gauge (SGEG) is an effort to gauge the social and gender inequities in the water sector. The focus is on communities and social groups and particularly on gender.

The effort here is not to reduce the inequities to a single number much as that would hold a lot of attention in terms of the policy makers rather through this effort, we hope to note the performance in the sector in the three broad areas of contestations over resources and rights, rules and rule making and authorities. The effort is to understand the contestation in the different domains which are non homogenous with diverse interests and bound in a relationship of both co-operation and conflict where contestation takes place over water in myriad ways. For example, household is both a site of conflict and co-operation for men and women and so is the community. By using these terms, we are in no way assuming a harmonious and consensual relationship at any of these domains.

There have been several debates around the need for indicators in development planning. Many of its opponents feel that single numbers hide the complexities behind the numbers and often do not serve the purpose it set out to achieve. Indicators have also come under academic scrutiny with questions being raised on the reliability of data, which is collected at huge scales

---

<sup>1</sup> This was a pilot study done in 2009-2010 in India and Nepal. The India study was led by SOPPECOM and the Nepal studies were led by Janwillem Liebrand and Pranita Bhushan. The study was supported by Gender and water alliance, GWA, Netherlands. The advisory team comprised of Margreet Zwarteveen, Sara Ahmed, Amita Shah and Chanda Gurung.

and also weighted and presented as a single number. Questions have also been raised as to how much should policy making rely on a set of numbers.

Its proponents however have argued that unless data is presented at a scale and in numbers that are intelligible to the policy makers there is little seriousness in using it for policy and programme planning. It is argued that Indicators of performance are an important aspect of evaluating the impacts of programmes where huge public spending is done. However, most importantly they are a political tool in the hands of people to monitor the progress of desired goals.

Various indicators around water have been developed over the years globally. These are of course important indicators and tell us a lot about the status of water supply across the globe, however they tell us little about the availability of water in the habitat or about how much time was spent to collect the water that they require, the queues they needed to stand in.

All of these indicators were largely concerned with the per capita availability of fresh water although each one tried to improve on the limitations of the subsequent ones.

Almost all of these indicators are in some ways concerned with the availability of freshwater and the increasing water stress at the global level. Few of them do talk about how social, technological and other factors influence these stress levels. None of these indicators have actually looked at the social composition of access to water and decision making.

The social and gender equity gauge looks at aspects in water access which are linked to inequities due to structural issues.

Here the focus is women and discriminated social groups like caste in the Indian context. While looking at access the SGEG has also looked at what constrains the access of women and the different social groups- economic status, caste and patriarchal structures. For example SGEG would look at the violence meted out to women and certain caste groups to access basic amenities like sanitation and water.

Cost of access is often understood only in monetary terms, but little attention is paid to look at the time and labour invested in accessing water and also in utilising it for domestic and productive purposes.

The SGEG is at a nascent stage and hopes to generate some discussion on the need for social and gender inequities data in the context of water.

The main purpose of this gauge is to make a political statement on the need to attend to the structural inequities in the water sector, which often are glossed over by the discourses around scarcity and conflicts.

The table below gives an overview of the indicators that were assessed across caste and gender.

Levels of contestation	Indicators	Variables
Resources and Rights	<p>Access to land, water, rights, technologies</p> <p>Access to water (in quantity and quality)</p> <p>a) Domestic- in relation to minimum requirements – relative water deprivation</p> <p>and</p> <p>b) Water rights for irrigation/production</p>	<p>Ownership of resources</p> <p>Access to water for domestic purposes in lpcd</p>
	<p>Cost of access</p>	<p>Time, labour and money spent on accessing minimum required water</p> <p>Obstacles in accessing water like incidences of violence or conflicts when collecting or using water</p>
	<p>Access to Sanitation</p>	<p>Who uses what and goes where?</p>
Rules, norms and laws	<p>Norms and rules for water allocations and distributions</p>	<p>On what basis is water, are water rights or water technologies and facilities, distributed (e.g. proportional to land; based on need; based on ability to pay; a combination...)</p> <p>What are the related rules for mobilizing labor and money for operation and maintenance (e.g. according to quantity of water used; all pay/contribute the same; ...)</p> <p>Who agrees and who disagrees with current distribution patterns and organization of management authority;</p> <p>What are alternatives of people who don't agree?</p>
Authorities	<p>Membership to water institutions</p> <p>Representation in Decision making</p>	<p>Who participates in water management decisions, whose authority is legitimate?</p> <p>Where and by whom are water decisions made?</p> <p>Membership criteria of WUAs?</p> <p>Inclusion – exclusion</p> <p>Conflicts and disagreements?</p> <p>Domains of decision making?</p> <p>Levels and nature of participation?</p>
Knowledge discourses	<p>Discourses that guide/justify existing patterns of allocation and distribution</p>	<p>What are the larger stories-discourses-cosmologies-ideologies – people use to explain (justify/criticize) existing allocation and distribution patterns of water? Who uses which discourses/frames of interpretation?</p>

## Methods of data collection and sampling

The methods of data collection were the

- Focus group discussion
- Spatial mapping
- Secondary information from government sources
- Field observations

The study was conducted in India and Nepal across 450 households. Sampling was done in a way that all caste groups and land owning and landless households were represented. The interviews were mainly administered with women respondents in India.

This note gives a brief report of the key findings of the study done in Maharashtra, India among 320 households.

The caste and religious categories in the area studied are as follows

Open	All the castes considered as higher in the caste hierarchy
OBC	Other backward castes
SC	Scheduled castes are also referred to as dalits or the exploited castes, now listed by the government for positive discrimination.
ST	Scheduled tribes are tribes that are listed in government lists as disadvantaged
DT	Denotified tribes which were earlier referred to as the criminal tribes.
NT	Nomadic tribes are of different types, those that are now settled, own land and thus better off than their brethren who still are nomads and wander in search of livelihoods. Our sample had NT households that have been settled and own land
Muslim	Religion

## **Overview of resource access, its cost on women and participation in decision making**

The detailed findings are discussed in the longer report that includes both the India and Nepal cases. Here we provide the overview of findings for Maharashtra, India.

In Maharashtra, the study was done in the northern district of Ahmednagar. This is a drought prone area known for water scarcity especially during summer. Ten villages were selected based on the population size of 300 households per village and dalit population being more than 15%.

## **Social composition of resources owned, accessed and participation in decision making**

In terms of resource access, we do see variations across caste. These are most evident in ownership of water infrastructure (source and related equipment), land ownership and also with regards to participation in decision making committees. In all of these villages, water committees for domestic water have been set up, few were aware of it, as the public water schemes either had become non-functional or were too old to be catered to. Watershed committees were now defunct and few institutions for decision making around water are now in existence.

Sanitation coverage is overall poor and this is surprising considering this was one of the most acclaimed districts as far as the total sanitation programme is concerned.

## Overview of caste wise water resource access and participation

Caste	Ownership of Well/bore well	% with more than 40 lpcd water available	Average water available (lpcd)	Sanitation access	Land ownership	Irrigated land (among total landowners)	Water equipment (motor pump, pipeline etc)	Participation in committees	Total
Open	65.24	66.46	90	42.07	88.41	82.07	76.83	0.61	164
OBC	42.86	59.52	58	45.24	57.14	83.33	59.52	4.76	42
SC	25.71	51.43	48	48.57	62.86	36.36	41.43	0.00	70
ST	20.00	50.00	34	20.00	40.00	75.00	40.00	0.00	10
DT	75.00	37.50	41	62.50	75.00	100.00	75.00	0.00	8
NT	57.14	71.43	81	28.57	78.57	81.82	78.57	0.00	14
Muslim	16.67	66.67	41	58.33	75.00	44.44	50.00	8.33	12
Total	50.31	61.25	71	43.75	75.94	72.84	64.69	1.25	320

Annexures 1-9 show castewise land holding and access to irrigated land mapped on to a cadastral map of the village. This information is based on the 7/12 revenue records provided by the Talathi for nine out of the 10 villages where the study was conducted. These maps show at a glance the status of landholding and irrigation amongst various caste groups.

All of the villages clearly indicate a disparity in land ownership and irrigation across castes with the dalits or the scheduled castes being the most resource poor among them. One of the villages in our sample was along the banks of a river and across caste landowners lifted water from the river for irrigation purposes. This was also a village where the ST population was high and hence the high number of ST households with irrigated land. The same is also true for Denotified tribes.

This data brings out the need for a caste analysis of resource access and the changing dynamics. The present data shows less variation among the upper castes and the OBC, DT and NT in land ownership and access to irrigation and to an extent access to domestic water.

As far as drinking water schemes are concerned, in most of the villages the public water supply schemes had become non functional or were only partially functioning. People were able to meet their 40 lpcd<sup>2</sup> needs from a number of sources and most of these were private sources, which also brought in other kinds of labour sharing arrangements into picture. Sarola village

---

<sup>2</sup> Litres per capita per day (lpcd) 40 lpcd is considered as a norm in rural India for meeting domestic water requirements

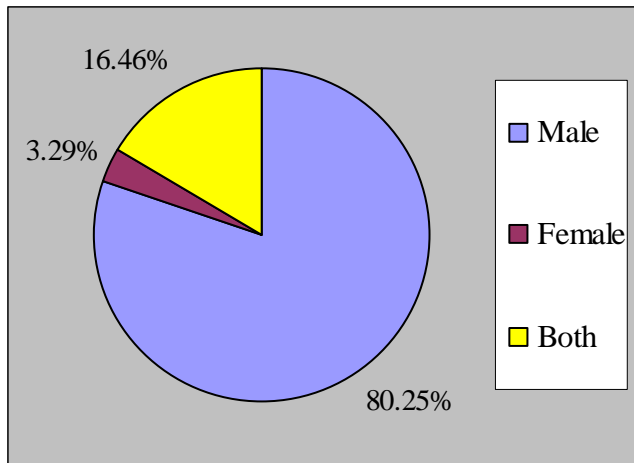
was the best example of this where women said that they were allowed access to a private well with a tacit understanding of providing their labour on the well owners' fields.

This data thus clearly points to a lack of effective public system to cater to the needs of the people, especially the dalits and other landless who have to completely depend on public sources for their domestic water requirements.

As far as gender issues are concerned, we see that women are not in the picture at all and men own most of the assets.

Landownership among women is seen in the chart and table below. If we look at women's landownership among landowning households, it is only 3.2% as against 80.25% for men.

### Women's ownership to land in landowning households



The table below shows this spread across different castes in which among the open castes larger number of women do own land. This is largely because these are also large landowning households that have transferred land titles in the name of women to retain their surplus land from being acquired for redistribution by the government under the land ceiling act.

### Caste wise spread of land ownership among women

Caste category	Number of women owning land	Percentage to the total number of women owing land
Open	43	75.44
OBC	4	7.02
SC	5	8.77
DT	2	3.51
NT	1	1.75
Muslim	2	3.51
Grand Total	57	100.00

### Gender and non paid work: The cost of water access

This was another important area of concern for us. Although computing time and energy spent for water collection from different sources involves significant amount of time and accuracy, we felt that understanding the cost for one source, which can be considered, as the primary source too would present a useful picture. The table below gives a picture of the time spent, distance traversed for collection of water and the time spent by women in its utilization for domestic purposes. Our data showed that women across castes spent considerable amount of time in water collection and its utilization. Hence castewise gender disaggregated data is not presented here. Differences however were seen across households that owned a private well. The cost of access needs to be seen against the data on access to water related resources and decision-making.

### Cost of water access borne by women in domestic water

Average distance traveled for fetching water (km)	0.18
Average time spent (minutes)- fetching water from one main source (in hours)	1
Average time spent in utilising water for domestic needs- (cooking, cleaning utensils, washing vessels in hours)	5.6

The study findings in both Nepal and India strongly point to the need to generate a data base of this kind for the region. Such a database of course indicates the extent of inequities in terms of access to water and decision-making but also provides us insights into areas for further research. It gives us a view into the social composition of the water access and the decision

makers at the micro level. While much of it falls in the realm of the commonsense the point that this database hopes to drive home is the need to recast this commonsense understanding into something, which moves towards water justice.

The other question is who would use this data and how would it be used. Most of this data has to be gathered on a continuing basis. At the moment the tool looks at the micro level and would need a lot of work before it can be scaled up to the macro level to provide a global comparison.

The tool in a modified form can be extremely valuable if communities can use it to monitor water access and their participation in allocation, distribution and related decision-making processes. Gathered through a participatory process through the involvement of civil society groups with some credentials this data can be a very effective planning tool. Such data collated on a frequent basis would help policy makers to make the necessary course corrections.

Annexure 1

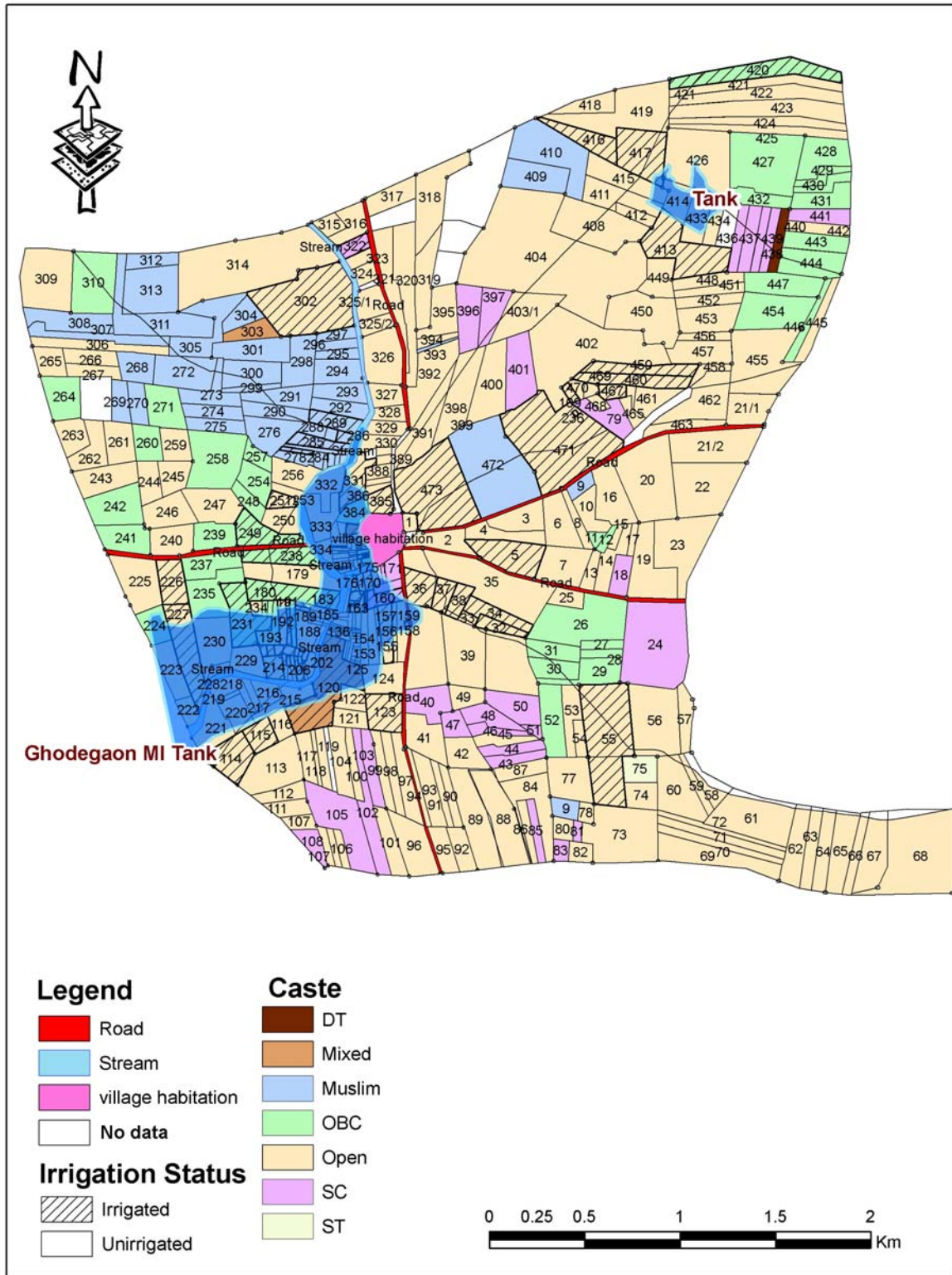


Fig1 : Village PIMPLEGAON ALWA map showing Caste wise land holding and irrigation status

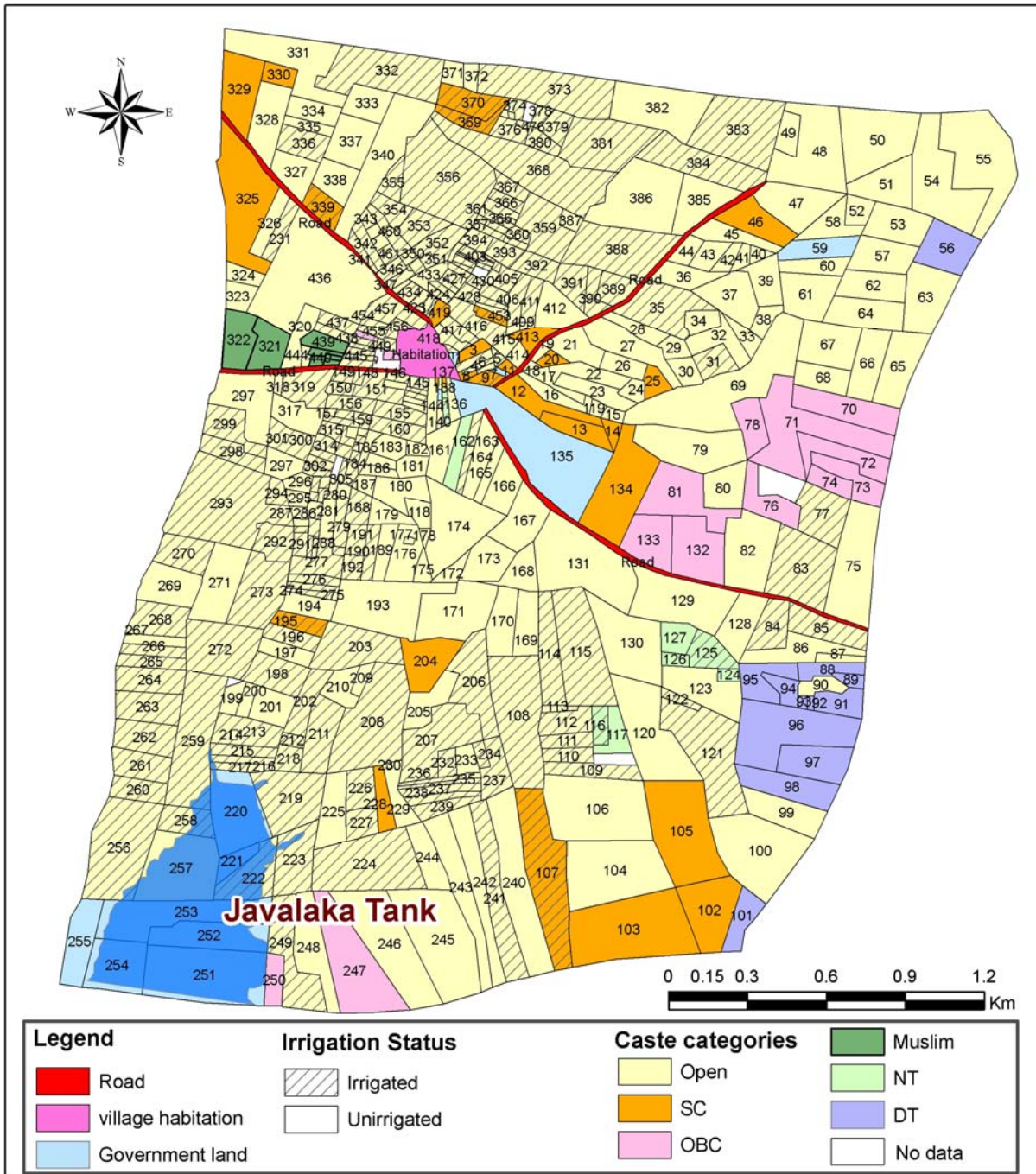


Fig 2 : Village PIMPLEGAON UNDA map showing Caste wise land holding and irrigation status

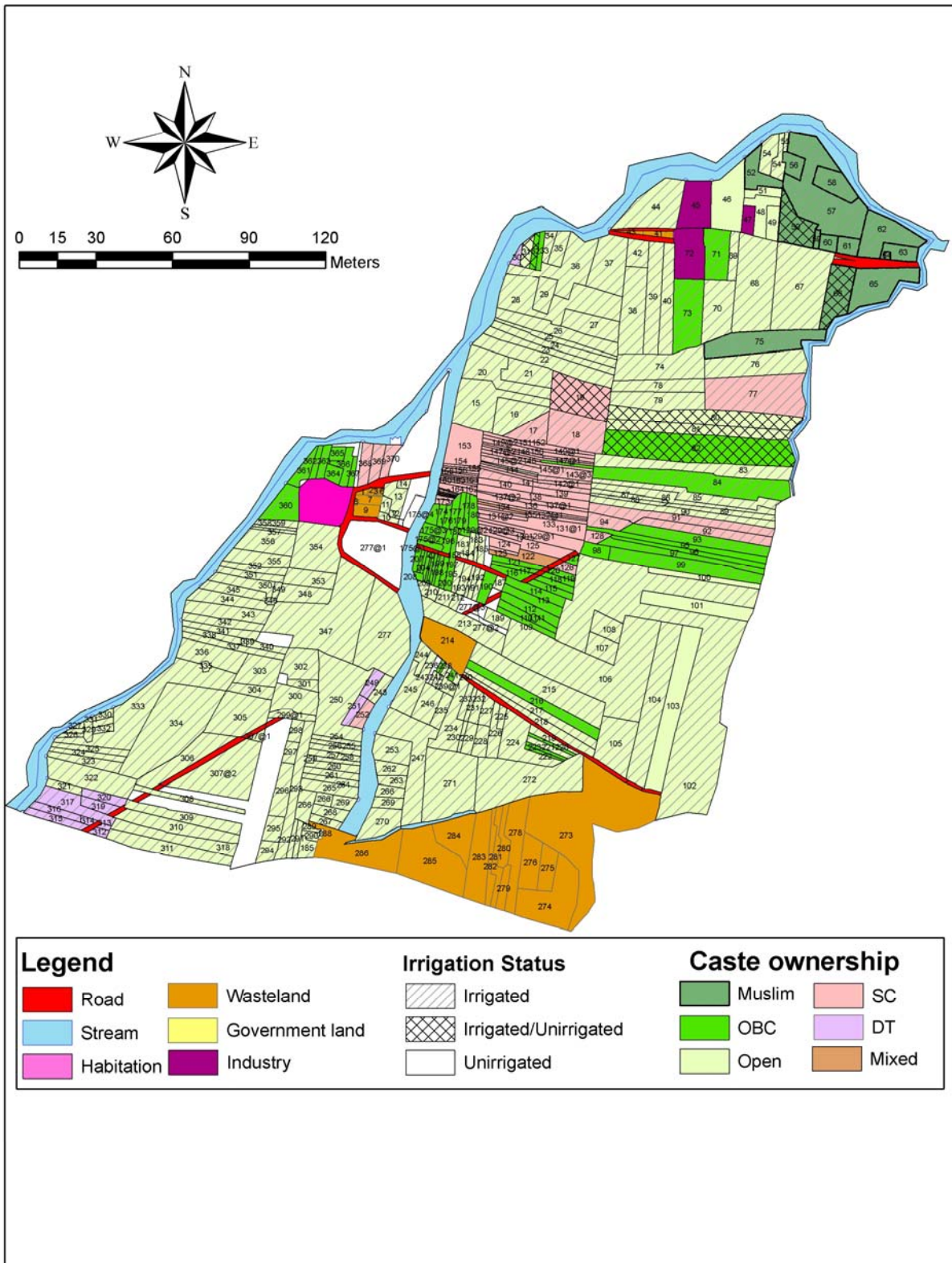


Fig3 : Village VADGAON AMLI map showing Caste wise land holding and irrigation status

Annexure 4

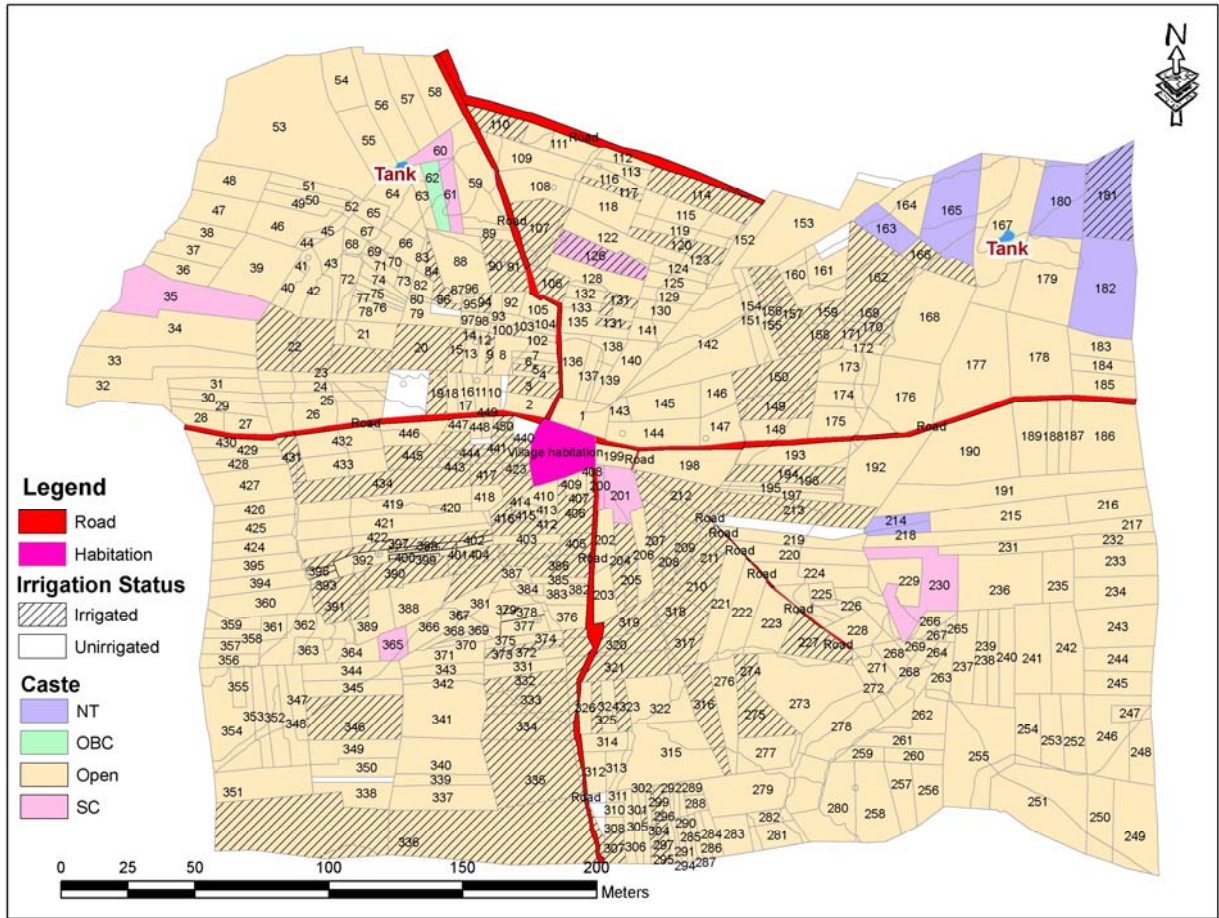


Fig 4 : Village SAROLA map showing Caste wise land holding and irrigation status

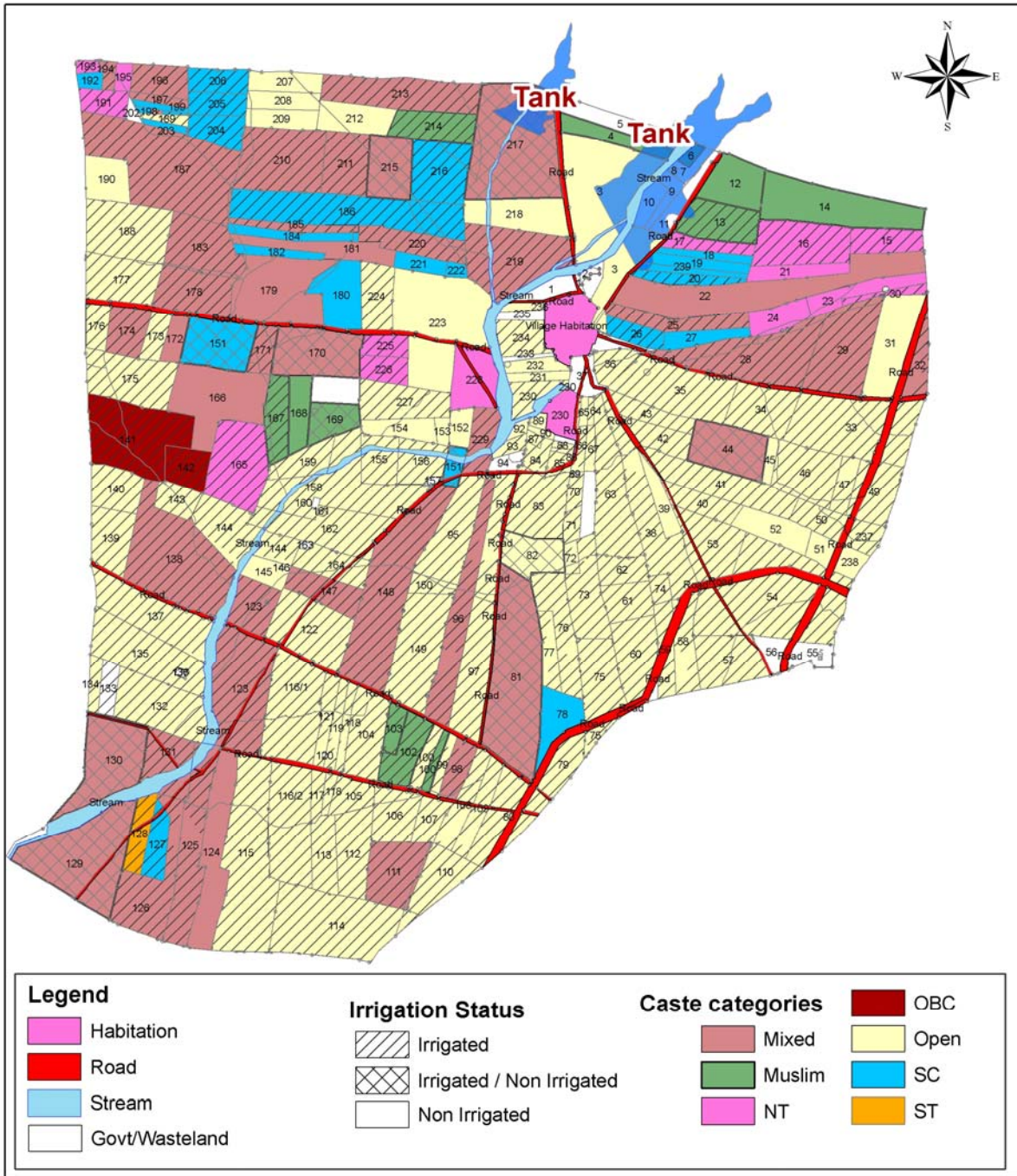


Fig 5 : Village SHIRASGAON BODHKA map showing Caste wise land holding and irrigation status

Annexure 6

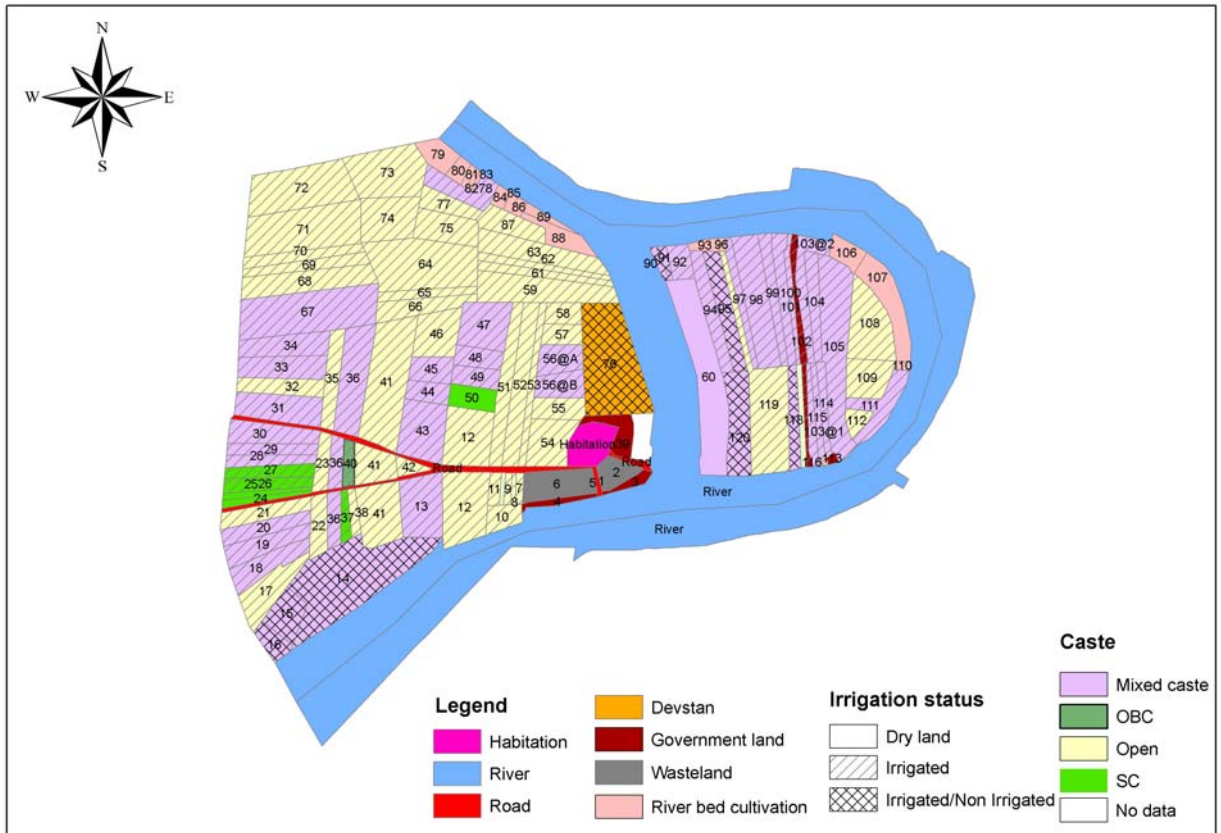


Fig 6 : Village ARVI map showing Caste wise land holding and irrigation status

Annexure 7

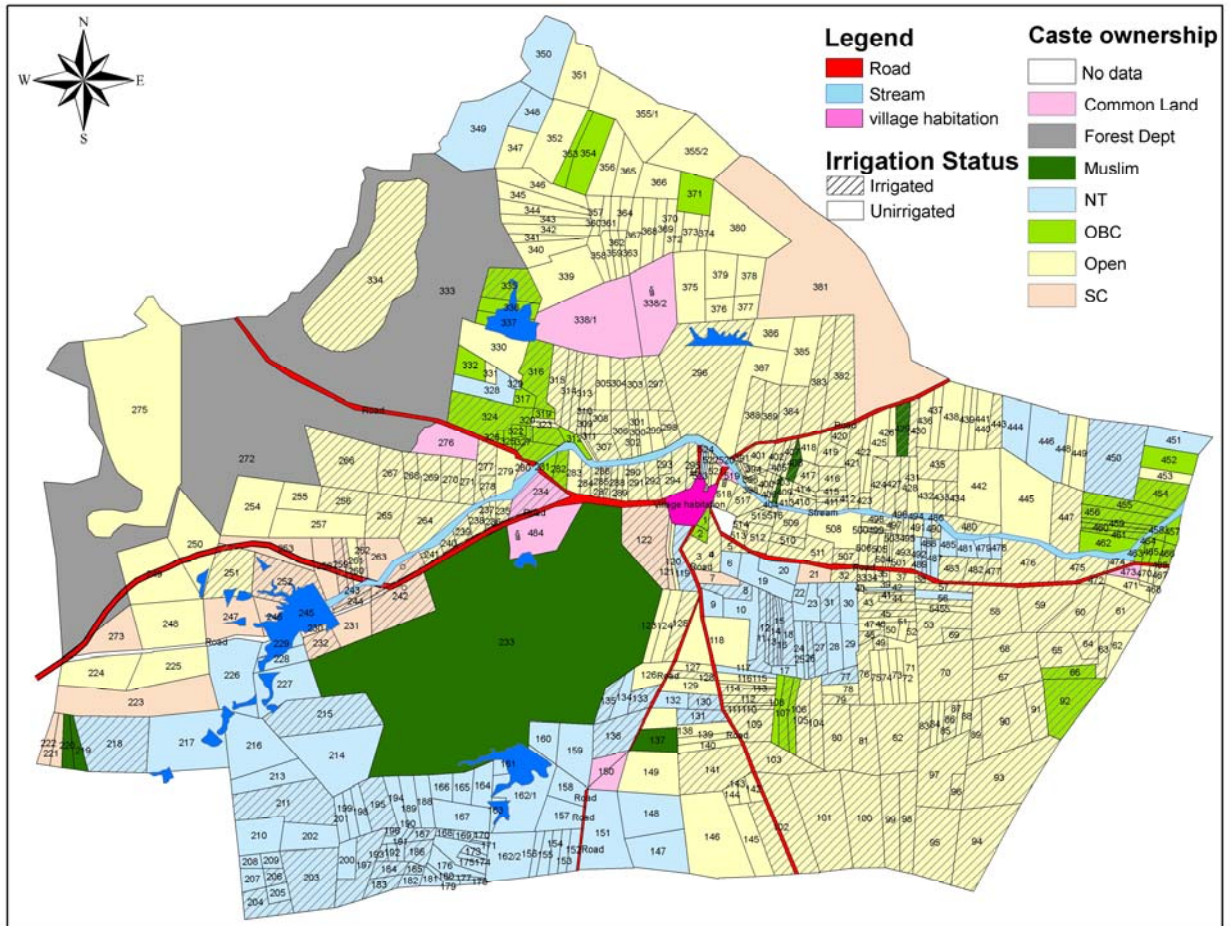


Fig 7: Village RAVALGAON map showing Caste wise land holding and irrigation status

Annexure 8

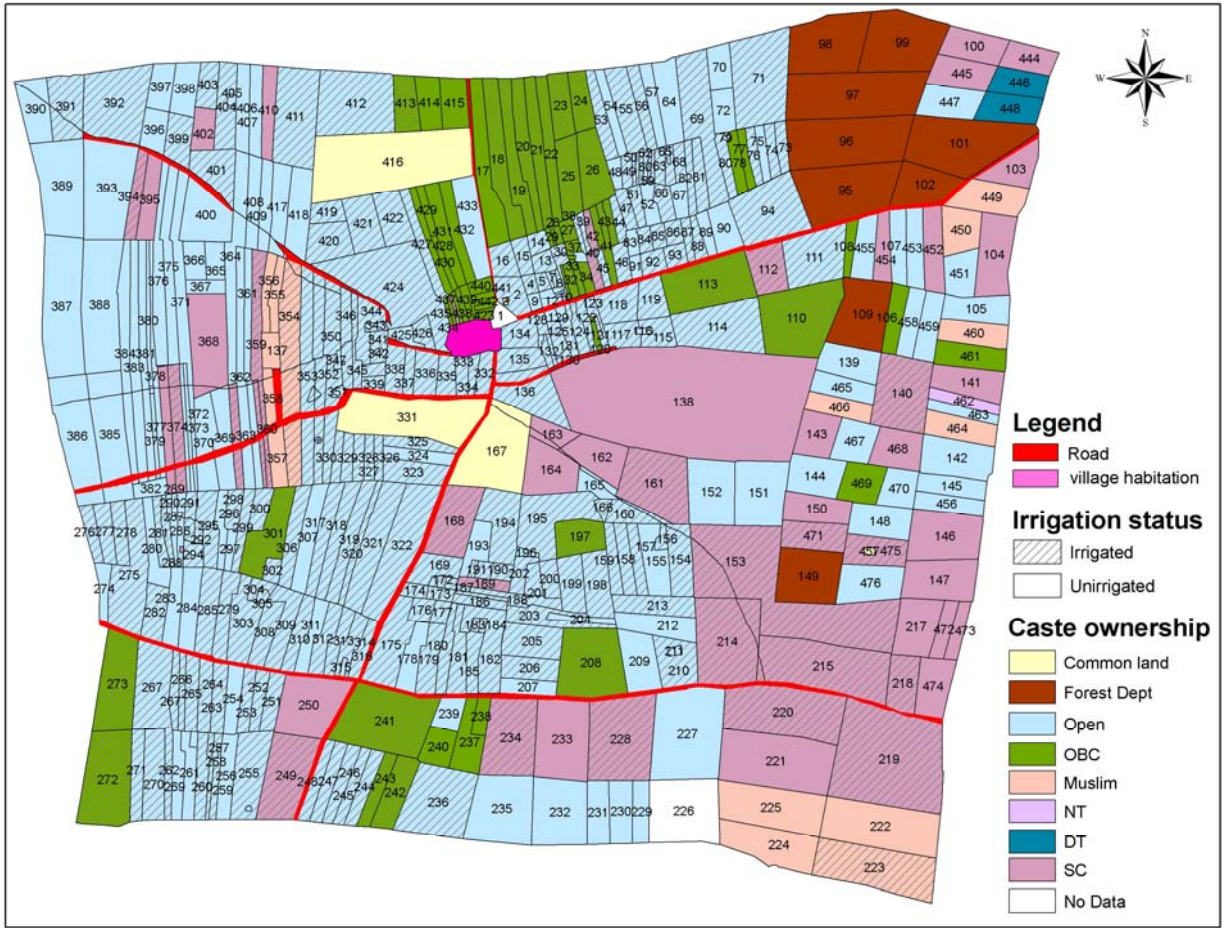


Fig 8 : Village DONGAON map showing Caste wise land holding and irrigation status

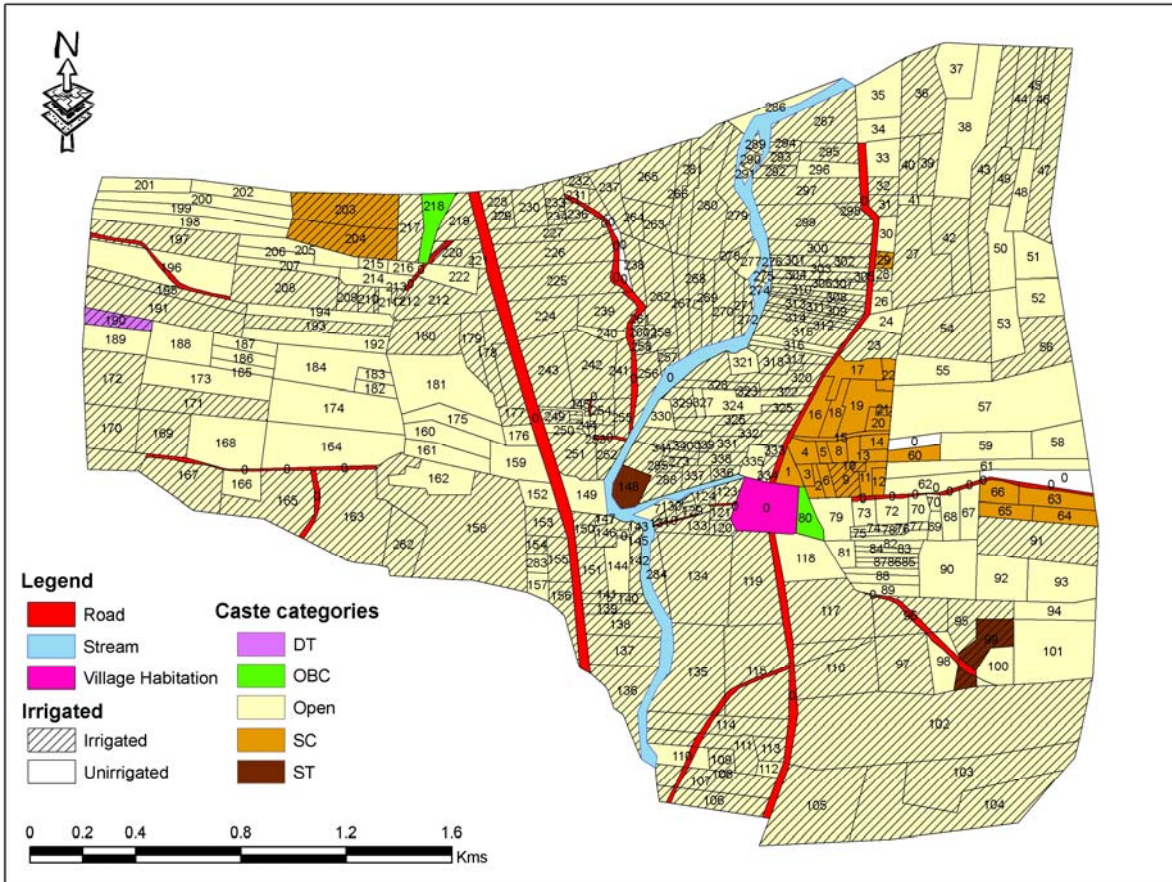


Fig 9 : Village *DHAUND PARGAON* map showing Caste wise land holding and irrigation status