# Is Deliberation Equitable? Evidence from Transcripts of Village Meetings in South India* 

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First draft: October 10, 2007
This draft: July 31, 2008


#### Abstract

The 73rd amendment to the Indian constitution mandates that open village meetings (gram sabhas) be held in every village, at least twice a year, to determine how village councils (gram panchayats) choose public goods and select program beneficiaries. We use data extracted from 131 gram sabha transcripts, matched with data from household surveys, to study how individual preferences for public goods are reflected in the meetings. We find households with more land have a higher likelihood of having their prefered public good mentioned in the meeting, with a longer amount of time spent discussing this public good, and a better chance that a decision to provide or repair the public good is taken. At the same time the voices of disadvantaged castes, while not dominating the meeting, are also heard. However, public goods prefered by Muslims are given less time. High village literacy and the presence of higher level officials during village meetings mitigate the power of the landed, but the power of the landed increases when village presidencies are reserved for low castes and women.


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## 1 Introduction

A decision-making process is considered democratic if it results in an outcome that reflects the 'will of the people'. Democracy's central challenge is to discern this will, particularly among people with different preferred outcomes. The theory of democracy proposes, according to Jon Elster[1986], two solutions to this challenge. The first solution, the subject of social choice theory, aggregates preferences across individuals. In this view of the world individuals do not interact with each other, they simply express their preferences, as they would do in a market transaction. The main finding of social choice theory is a negative one: Arrow's impossibility theorem states that a rule for aggregating individual preferences that satisfies a set of reasonable conditions does not exist. The second solution to the democratic challenge is deliberation. Instead of aggregating preferences across individuals, the ideal deliberative process consists of discussions during which some individuals can be persuaded by others to change their preferences and at the end of which "unanimous preferences"(Elster, 1986, p. 112) emerge. To Elster, the distinction between the two decision making processes is akin to the distinction between "the market and the forum". In this paper we use data extracted from transcripts of village meetings, coupled with household surveys, to empirically explore the mechanism of deliberation. In particular, we look at the extent to which individual preferences for public goods are matched by discussion of public goods in the meetings.

There is a large literature on processes that aggregate individual preferences - particularly on voting behaviors, but the literature on deliberative processes is relatively sparse: Osborne, Rosenthal, and Turner[2000] study participation in meetings from a theoretical perspective. Their model assumes that individuals have favorite policies represented by a point in a multidimensional space, with valuations depending only on the Euclidean distance between the implemented
policy and their favored policy. The model predicts that only individuals with extreme positions participate in meetings. They assume that the outcome of the meeting is a function of the favorite policies of the participants and conclude that the outcome is likely to be random. Turner and Weninger[2005] do an empirical test of this theoretical model using data on the participation of firms in public regulatory meetings. They find that firms with preference for extreme rather than moderate policies are much more likely to attend. Besley, Pande, and Rao[2005a], using the same household level data from our paper, study the determinants of participation in village meetings. They find that women, illiterates, and the wealthy(in term of asset ownership) are less likely to attend the meetings but disadvantaged castes and the landless are more likely to attend. They also find that when village meetings are held, decisions become more equitable ${ }^{1}$.

Some scholars (Dryzek and List[2003], List[2008]) argue that social choice and deliberative democracy should not be viewed as antagonists because deliberation may in fact free social choice from the impossibility results by making individual preference more single peaked and hence amenable to aggregation by voting. List, Luskin, Fishkin and McLean[2006] find evidence for the effect of deliberation on preferences. They use data from deliberative polls, and measure individuals preference before and after the deliberation. Their results show that deliberation does indeed move preferences closer to single peakedness.

Deliberative processes have acquired particular importance in recent years, particularly in the developing world, because of the increasing emphasis placed on community-based decision making by policy makers[Mansuri and Rao 2004]. Part of the reason for this emphasis is a belief that involving people to participate in decisions that affect their own lives will make development more "demand-

[^1]driven," and improve the quality of governance by increasing the proximity of decision-making processes to citizens and thus enhance transparency and accountability. This has led countries around the world to give increasing powers to local governments[Bardhan and Mookherjee 2006]. Several scholars have expressed concern that in unequal societies this would subject village decisions to the risk of elite-capture ([Bardhan and Mookherjee 2000], [Bardhan 2002]), but there is not much evidence about how these processes actually work ${ }^{2}$.

Much of what we know about the empirics of deliberative processes are from deliberative polls which are a set of methods developed by the political scientist James Fishkin and his colleagues where groups of randomly chosen individuals are gathered in groups to conduct discussions on particular subjects (http://cdd.stanford.edu/). The method has generated a wealth of information on deliberation, but it has the limitation that the deliberative processes studied are not a part of a regular and routine system of government but the result of an academic intervention within a constrained setting. Studies of deliberative systems of government are very rare and largely qualitative. Jane Mainsbridge's[1983] seminal ethnography of town meetings in Vermont provides rich insights into how deliberation works as a system of government and comes closest to an analysis of the kind we conduct in this paper. Her work outlines the complexity of the deliberative process but largely supports the idea that common interests facilitate deliberation, particularly in settings where citizens prefer to avoid adversarial discussions ${ }^{3}$. Baiochi[2005], similarly, examining the famous process of deliberative decisions on budgets in the Brazilian city of Porto

[^2]Allegre finds that, over time, it evolved into a system that favored the interests of poor groups. On the other hand, James Madison in the Federalist Papers (Federalist No. 10 [1787]) famously cautioned that "a pure democracy, by which I mean a society consisting of a small number of citizens, who assemble and administer the government in person, can admit of no cure for the mischiefs of faction." Similarly, Albert Hirschman[1976] has argued that deliberation may be manipulated by an "articulate minority". This echoes the well-known debate between the philosophers John Rawls[1995] and Jurgen Habermas on the role of social and political inequalities in deliberative democracy with Rawls outlining an idealistic position where true deliberation is able to overcome differences, and Habermas articulating a more Madisonian caution. Despite the long-standing theoretical interest on the issues there is a lack of credible evidence testing whether deliberative processes can result in domination by a faction (Fishkin and Lushkin (p. 294)).

In this paper we analyze the mechanism of deliberation in Indian village governments. Our village level data, consisting of transcripts of open village meetings (gram sabhas) empowered by the Indian constitution to make important decisions for the village, is linked with data from surveys from random samples of households in the same village on preferences for public goods and socio-economic variables. This enables us to examine the determinants of the match between individual preferences and the preferences that emerge during deliberations. We find that the preferences of the landed class are more likely to be mentioned in the meeting and also take up more time in the meetings. Equally important, the voices of disadvantaged castes, while not dominating the meeting, are also heard. The transcript data allows us to distinguish between officials' and villagers' talk, as well as between men's and women's talk. Using these partitions, we are able to more accurately pinpoint the source of these
effects. We find that the land dominance effect does not stem from the officials favoring landed classes in their speeches, but rather from landed villagers being more vocal than the landless. In addition, we find that preferences of disadvantaged castes are more likely to be mentioned in the discourse of officials but not in what villagers talk about. Within villagers' talk we see that the preferences of Muslims are dominated by those of Hindus. This finding suggests that the Muslim minority, which does not benefit from affirmative action, is marginalized in these meetings. Another notable finding is that when women talk, the discourse is dominated by the preferences of women which is not surprising. In the transcripts we were also able to locate instances where decisions regarding the provision or maintainance of public goods were made. Using these instances, we find that positive decisions are more likely to be reached for the public goods preferred by the landed. We want to emphasize that the evidence of inequities is restricted to the deliberative space of the village meetings. We do not have data about the policy outcomes that may follow these meetings, so we cannot say whether inequities in deliberation translate into inequities in outcomes.

Having found that the preferences of the landed class are more likely to be mentioned and take up more time in the meeting, we investigate whether village level characteristics accentuate or mitigate this effect. Literacy has been shown to have a positive effect on the outcomes of local governance. For example, Besley, Pande and Rao[2005b] find that increased literacy reduces village leaders' opportunism. Our findings, similarly, are that literacy mitigates the power of the landed in village meetings. Political reservations for women and disadvantaged castes have been also documented to play an important role in local governance, but the evidence on the role of women's reservations is mixed. For instance, Chattopadhyay and Duflo[2004b] find that women leaders benefit their villages while providing the public goods preferred by women, while Ban
and Rao[Ban and Rao 2008a] find that women leaders do not influence the provision of public goods and that their performace is hampered by the presence of a large upper caste landowner faction. Chattopadhyay and Duflo[2004a], and Besley, Pande and Rao[2004b] find that reservations for disadvantaged castes yield benefits to the members of these castes in the village. In this paper, we find that reservations for women and disadvantaged castes exacerbate the power of the landed in village meetings. Finally, we examine the role of upper level supervision in these meetings. We find that the presence of a powerfull upper level bureaucrat, the Block Development Officer, also mitigates the power of the landed in village meetings.

## 2 The Context: Village Government in South India

Article 243 of the Indian constitution empowers village councils (gram panchayats - henceforth GPs) elected every five years with the powers to prepare and implement plans for "economic development and social justice," it also mandates that a gram sabha, a deliberative body consisting of all individuals registered to vote within the gram panchayat's jurisdiction, "will exercise such powers and functions as given it to it by the state legislature." In the South Indian states of Andhra Pradesh, Karnataka, Kerala and Tamil Nadu, where our data are from, the state legislatures have given the gram sabhas considerable powers. They are expected to prepare village plans, discuss budgets, select beneficiaries for government program, impose new taxes and modify old ones, and discuss "such other matters as may be prescribed." In effect these states have made gram sabhas the lynchpin of village government and mandate that they should be held between two to four times a year, depending on the state. This power is somewhat tempered by the fact that GP budgets in most Indian states ${ }^{4}$ have, until

[^3]very recently (after these data were collected), been low, and gram sabhas are not held as regularly as required by state law (Besley, Pande, and Rao[2005a]). However, the rights granted to them by law to make decisions on public good allocation and beneficiary selection, which are central to village life, ensure that gram sabhas are a powerful, constitutionally mandated, deliberative space.

The average gram sabha lasts 86 minutes. They typically begin with a presentation by a village official - either the president or the village secretary, after which the discussion is opened to the public. Occasionally an agenda is circulated in advance which directs the discussion towards certain subjects but, more usually, it is an open discussion where villagers bring up particular demands or grievances which are then responded to by a member of the council, or the village secretary - a village-bureaucrat who assists the council. This callresponse model is sometimes diverted by an extensive speech either by a council member or a villager on topics that can range from requests to comply with tax payments, to critiques of affirmative action, to a hagiography of the village council's tenure outlining its various accomplishments. The latter is more likely to occur when the gram sabha is held during an election year.

Local officials such as public works engineers are required to attend the gram sabha to answer technical questions and respond to concerns. Sometimes higher-level officials also attend. The most significant of these is the Block Development Officer (BDO) who is the administrative officer in charge of the Block (sub-district level administrative entity) where the GP is located. The BDO is a powerful person and his (it is almost always a him) presence can significantly alter the discourse of deliberation because he has the power to make things happen: allocate budgets and people to pressing needs, and to impose sanctions in case of improprieties. Article 243 also mandates political reservations for presidencies of councils and for council members seats. The
proportion of seats reserved for underprivileged castes ("scheduled castes" and "backward castes") is allocated according to their proportion in the population, and a third of the seats are reserved for women.

## 3 Data and Methodology

In order to study gram sabha deliberations we bring together two different sources of information. In November 2001 we conducted a survey at the village and household level to study various aspects of GPs in South India employing a sampling methodology described in detail in the next section. One randomly chosen adult from every household in the sample was asked questions about the household's socioeconomic status, household structure, views and use of public services in the village, and access to targeted benefits from the government. The respondents were also asked to provide open-ended responses rank-ordering their preference for problems in the village that needed attention. The problems were elicited from the respondent and postcoded into broader categories. From this ordering we constructed an individual preference measure: defined as his or her first-ranked problem in the village.

Then from January to September 2003 we tape-recorded the proceedings of 38 Gram Sabhas in a sub-sample of the villages surveyed in the 2001 survey. This was supplemented by another round of 93 gram sabha recordings from October 2004 to February 2006 - where the 38 villages from 2003 were revisited along with an additional 55 villages, also selected from the original 2001 sample. Table 1 presents the meeting breakdown by round and state. Each transcript was divided into paragraphs, according to the natural pauses in speech. In the transcripts, all speakers were identified by position (official or villager) and gender ${ }^{5}$. A change in speaker automatically translates into a new paragraph, but

[^4]a speaker can have more than one consecutive paragraph. For each paragraph the topics mentioned were recorded via two methods: First, topics were manually coded, by reading every transcript and noting the topics mentioned in each paragraph. Second, to ensure the replicability of our findings, we coded the topics by keyword searches ${ }^{6}$. The two methods yield very similar results, and in the paper we will base our results on the keyword-searched topics. In addition, we also identify whether a decision was taken in any paragraph, whether it was a decision for or against, and the topic of the decision. This identification of decisions was done manually. In the appendix we provide a couple of examples of decisions. Hence, we can partition the transcripts based on the hierarchical position of the speaker (official or villager), the gender ${ }^{7}$ of the speaker, and on whether the paragraph contains a decision (for or against). In Table 2 we present summaries for the occurence and the fraction of lines dedicated to each of these partitions.

We define two measures for each topic: the occurrence of the topic, as a dummy variable, and the intensity of the topic. The intensity of the topic is defined as the ratio between the number of lines in the paragraphs in which the topic was mentioned and the total number of lines in the transcript. Furthermore, we apply the definitions of these measures to every partition. Hence, we have an occurence and intensity measure for officials' talk, villagers' talk, women's talk, men's talk, any decision, decision for, and decision against ${ }^{8}$. In

Table 3 we present the summaries of topic measures overall and for each partition.

[^5]As explained in more detail below, we match a household's preferences with the topics revealed in the gram sabha in the household's village. These matched topics are then studied both as indicators, and in their level of intensity, to understand the types of households who are more likely to have their preferences discussed in the gram sabha.

### 3.1 Sampling

The sample was selected from seven districts in the four South Indian states, two in Andhra Pradesh (AP) - Medak and Chithoor, three in Karnataka (KA) - Bidar, Kolar and Dakshin Kanada, two in Kerala (KE) - Kasargod and Palakkad, and two in Tamil Nadu (TN) - Dharmapuri and Coimbatore. Districts within states and blocks (sub-district level entities) within districts were purposively chosen to control for common histories and cultural similarities. The district and block sampling is less relevant for this paper and is described in more detail in Besley et. al. ([2004a]).

The blocks are divided into several GPs - each of which consist of between 1 and 6 villages depending on the state. From every sampled block in AP, KA and TN we randomly selected 3 of our 6 sampled GPs and conducted household interviews in all the sampled villages falling within these GPs. In Kerala we randomly selected 2 GPs in one block and one GP in the other block. Within sampled GPs we conducted household interviews in all sampled wards ${ }^{9}$. This results in a household sample that draws from 101 GPs with 259 villages. Twenty households were sampled at random from every selected village ${ }^{10}$, of which four always belonged to Scheduled Caste or Tribes (henceforth

[^6]SC/ST - who benefit from affirmative action programs mandated by the Indian constitution). In addition to these randomly sampled households the president of the GP, and the ward members were also subjected to a household interview. This yielded a total number of 5445 households.

Due to budgetary limitations we omitted recording gram sabhas in Andhra Pradesh in round 1. In the other three states we randomly selected 4 blocks from Karnataka, 5 blocks from Kerala, and 6 blocks from Tamil Nadu, resulting in a total gram sabha sample of 38 villages. In round 2 we expanded the sample to include the state of Andhra Pradesh where we visited 18 villages in 6 blocks. In the other three states, in addition to the villages where we recorded gram sabhas in 2003 we sampled 10 more blocks resulting in an total sample of 131 gram sabhas in 97 villages. In four of the 131 gram sabhas we visited, village leaders did not allow the proceedings to be taped.

To explore the relationship between individual preferences and the topics discussed during the Gram Sabha we link the household data to the meeting transcript from the same village. In the villages where both rounds of meetings were recorded, each household is counted twice. Hence, our analysis is based on the subset of 2404 households located in villages where gram sabhas were recorded.

### 3.2 Methodology

We measure the extent to which a villager's preferences are matched by the topics. To this end, we construct two individual level variables, a match dummy $(M D)$ and a match intensity $(M I)$. Let $T_{g}=\left\{\left(t_{k g}\right)\right\}$ the set of topics ${ }^{11}$ mentioned at the meeting in village $g$, with each topic $t_{k g}$ being occupying a fraction $f_{k g}$ of the discussion. Let an individual $i$ living in village of $g$ have topic $t_{i}$ as

[^7]her first priority. Then the match dummy is defined as:
\[

M D_{i g}= $$
\begin{cases}1 & \text { if } t_{i} \in T_{g} \\ 0 & \text { otherwise }\end{cases}
$$
\]

and the match intensity is defined as:

$$
M I_{i g}= \begin{cases}f_{i g} & \text { if } t_{i} \in T_{g} \\ 0 & \text { otherwise }\end{cases}
$$

Table 5 presents the summaries of the match indicator and match intensity.
To estimate the effect of household and individual characteristics on preference match we use these two measures as dependent variables in ordinary least squares estimations:

$$
\begin{align*}
& M D_{i g}=\alpha_{g}+\sum_{t \in U} \gamma_{t} I\left(t_{i}=t\right)+\beta X_{i g}+\epsilon_{i g}  \tag{1}\\
& M I_{i g}=\alpha_{g}+\sum_{t \in U} \gamma_{t} I\left(t_{i}=t\right)+\beta X_{i g}+\epsilon_{i g} \tag{2}
\end{align*}
$$

Where $\alpha_{g}$ are village level fixed effects, $\gamma_{t}$ are preference fixed effects, and $X_{i g}$ is the matrix of individual and household level variables described in Table 3. It is important to note the two types of fixed effects that we use. First, by employing village level fixed effects we control for all village level characteristics that may affect both the individual characteristics and the preference match. Second, by employing preference fixed effects, we control for any unobserved characteristics specific to individuals who hold a given preference. To correct for correlation within a village, standard errors were clustered at the village level.

## 4 Results

In Table 2 we present the summaries of the different transcript partitions. Looking at the intensity column we find that officials' talk takes up 66 percent of the discussions, while villagers' talk takes up the remaining 34 percent. Men appear to dominate, taking up 81 percent of the discussions. We also find that some kind of decision is reached in 56 percent of the meetings, a for-decision in 51 percent of the meetings, and an against-decision in 17 percent of the meetings. The time dedicated to decisions is very brief as it only takes a couple of lines to state the decision. Given this brevity, in the following results we will focus only on the occurence of decisions and not the time dedicated to them.

In Table 3 we present the overall summaries of gram sabha topic ${ }^{12}$ measures, and then disaggregated by speaker's position in the hierarchy, by speaker's gender, and by whether the paragraph contains a decision. From this table we see that there are no systematic differences between the topics discussed by villagers and officials, or men and women. The rank-ordering of both the occurence and intensity measures are nearly identical across the speaker-type partitions, and it also nearly identical for the topics where decisions for and against were reached, the only striking difference being decisions about roads.

Table 4 presents the summary statistics for the individual level variables, including preferences. We first look at whether individuals with different characteristics have significantly different preferences. Table 5 presents these findings. We observe that the amount of land owned leads to a large and significant difference in preferences. Large landowners are more likely to have a preference for roads and education, and less likely to have a preference for housing, in contrast with the landless villagers. Preferences also vary significantly across

[^8]caste groups, but not across gender and age groups. The forward castes are more likely to have a preference for roads compared to Scheduled Castes and Scheduled Tribes(SCST). The backward castes (BC/OBC) are more likely to have a preference for water, as compared to the two other groups. Muslims are more likely to have a preference for water and less likely to have a preference for roads than non-Muslims. Furthermore, politicians ${ }^{13}$ are more likely to have a preference for water and less likely to have a preference for roads than non-politicians.

Having reviewed the types of preferences expressed by individuals, we move on to analyzing how often these preferences are mentioned during village meetings. Table 6 presents the summary of preference matches. We observe that the average individual has a 90 percent chance of having her preference mentioned during the meetings. Furthermore, the average individual's priority takes up 21 percent of the discussion. Looking at the breakdown by type of speaker we observe officials are more likely than villagers to mention the average individual's preference. We can interpret this as officials being more substantive and egalitarian in their speech, while villagers' speech may possibly leave more room for competition between villagers for expressing their preferred topic. A similar comparison can be made between matching within men's and women's talk. The men, taking up the overwhelming majority of the discussions, are much more likely to mention the average individual's preference. As for decisions, the average individual has a 28 percent chance of having his preference decided on during the meeting. Furthermore, $\mathrm{s} /$ he has a 24 percent chance of receiving a for-decision and a 9 percent chance of receiving an against-decision ${ }^{14}$.

Next we explore the effect of individual characteristics on the likelihood of preference matching and match-intensity. Table 7 presents the results of the

[^9]ordinary least squares estimation of (1) and (2). In column (1) the dependent variable is the match indicator. In column (2) the dependent variable is the match-intensity. The results show that, in unrestricted speech, having more land and belonging to a disadvantaged caste increases the chance of having one's preference mentioned. Specifically, owning 10 more acres of land increases the owners match likelihood by 1 percent, and being part of the Scheduled Castes or Scheduled Tribe increases one's match likelihood by 3 percent. Hence, the difference in match likelihood between an SC/ST and a Forward Caste ${ }^{15}$ is the same as the difference between a landless individual and a very large landowner owning 30 acres of land. These two effects imply that land-owning households have a stronger voice in village meetings, but also that the benefits of affirmative action afforded to $\mathrm{SC} / \mathrm{STs}$ helps them in being heard. The reason for this is the important role that gram sabhas play in selecting beneficiaries for private goods such as housing and toilets that are targetted towards disadvantaged groups. On the other hand, the time spent on discussing the preferences of Muslims is 2 percent lower than the time spent on Hindu preferences. This discriminant effect against Muslims is particularly important when seen in the light of the $\mathrm{SC} / \mathrm{ST}$ result. It implies that minorities such as Muslims, who are not protected by affirmative action, have a harder time having their views heard within a deliberative space.

Once we decompose the discussion by the position of the speaker in the village hierarchy, in Table 8, we see that the land effect arises from the domination of landowners issues in the discourse of the villagers and not from preferential treatment by village officials. Furthermore, in the villagers' speeches, large landowners are not only more likely to have their priorities mentioned, but their views take up a larger fraction of the discussion. Specifically, owning 10 more acres of land increases the owners preference match likelihood by 2 percent and

[^10]the match intensity by 0.6 percent. Decomposing the caste effect, we observe that the advantage of SCSTs is driven by an increased preference match likelihood within officials' talk, that is not paralelled in villagers' talk. A possible interpretation of this effect is that since attention to the needs of the SCSTs is mandated via targeted programs, officials are attempting to ensure that these programs are implemented. However, we should note that being an SCST is associated with a 3 percent increase in match likelihood within officials speech, but this increased likelihood is not accompanied by increased intensity which could be a sign that the attention to SCST priorities is met in form but does not affect their predominance in the deliberations.

In Table 9 we decompose the discussion by the gender of the speaker. The first notable result is that within women's talk, the preferences of women take up more time (column (2)). This may not be surprisizing but it is good to see if in a context which is characterized by sharp gender inequality. The effect is particularly important in the light of measures, such as political reservations, taken by the Indian government to promote the political participation of women. In a related paper, using the same transcript data, we have found that in villages where the position of Gram Panchayat president is reserved for women, women to tend to talk more during the village meetings[Ban and Rao 2008b]. A similar result was found by Chattopadhyay and Duflo[2004b]: that in constituencies reserved for women the public goods investments reflect the preferences of women. The second notable (non)result is that within women's talk, the effect of landowership disappears. This may be interpreted as women's talk being insulated from the traditional power of the landed class. The effect of landownership is present within men's talk, but only in the indicator equation. Another interesting result is the age effect within men's talk. Older individuals are less likely to have their preferences mentioned when men are speaking.

In Table 10 we examine the effect of individual characteristics on the likelihood of a decision being reached on a household's prefered topic. We find that again, owning more land increases the likelihood of having one's preference decided upon by 2.6 percent. When we distinguish between for- and againstdecisions we find that the land effect is driven, largely, by for-decisions. This finding further emphasizes the power of the landed class in the deliberative space. It implies that not only are the voices of the landed stronger in overall discussions, but that they are also stronger in the crucial, decision making stages of the discussion.

In the remainder of the paper, we investigate whether village level characteristics of interest - literacy, political reservations, and supervision - matter for the deliberative process. In particular, we see whether these characteristics mitigate or exacerbate the effect of the individual characteristics observed in the main results. To estimate this effect we include an interaction ${ }^{16}$ term between the characteristic of interest and landownership in the regression. We focus on interactions with landownership as this is the individual characteristic that is most consistently associated with increased likelihood and intensity of match. We present the results in Table 11. First (columns (1) and (2)), we find that, compared with average literacy villages, the land domination effect is significantly reduced in high literacy ${ }^{17}$ villages with large landowners at a disadvantage in terms of both in the likelihood of a preference match and in match intensity. One interpretation of this is that high literacy "lubricates" deliberative interactions by allowing officials to raise issues that matter to a wide group of people and thus make discussions more inclusive. This finding is in line with numerous other findings that highlight the beneficial role of literacy on the

[^11]functioning of local governance. For example, Besley, Pande and Rao[2005b], using the same village level data, find that increased literacy reduces the level of village leaders' opportunism.

Next, we look at the effect of political reservations for disadvantaged castes and women (columns (3) and (4)). We find that reservations for women, SC/STs, and other backward castes ( OBC ) exacerbate the land dominance effect, in the likelihood of a match, and that SC/ST reservations also worsen the land dominance effect in the intensity of match. In fact, the land dominance effect appears to be absent outside reserved constituencies. We interpret these results as a sign that political reservation for women and low castes installs weak leaders which, in turn, reduces the restraints on large landowners. We also tested the hypothesis whether women and members of the lower castes, in women-reserved or caste-reserved constituencies, are more likely to have their priorities mentioned but find no evidence of this ${ }^{18}$.

Finally, in columns (5) and (6) we look at the influence of the BDO's presence in the meetings. We find that when this official attends the gram sabha, the land dominance effect is reduced. Specifically, in the presence of the BDO, while large landowners are still more likely to have their priorities mentioned, the time spent discussing these priorities is significantly reduced. This underlies the disciplining role that higher level officials can play in the deliberative process. Furthermore, this result indicates a straightforward action that can be taken to reduce elite dominance ${ }^{19}$.

## 5 Conclusion

This paper attempts to peer inside the black box of deliberative democracy. We use a unique dataset of transcripts of gram sabhas (village meetings) in South

[^12]India to learn about the process of deliberation. These meetings are a part of the system of village government, held at regular intervals, and are empowered by the Indian constitution to make important decisions for the village. We find that powerful groups, such as landowners exert an unduly large influence on the deliberative process, as their preferences are more likely to be mentioned and dominate the deliberations by taking up more time. This effect is a true dominance effect as it occurs in the villagers' discourse, but does not reflect preferential treatment from officials who attend the meeting. Our results also show that the needs of disadvantaged castes are also reflected in the deliberative process, but this occurs because these needs are more likely to be mentioned by officials. On the other hand Muslims, a minority group which lacks access to affirmative action, are less likely to have their preferences heard. We also find that village institutions matter in the deliberative process; high literacy tempers the extent to which gram sabhas are dominated by landlords. Landlord domination is also reduced when the Block Development Officer - an important local official - attends the meetings. On the other hand, in villages where the presidency is reserved for lower castes and women, the discourse tends to be even more dominated by landowners suggesting that political reservations may produce weak leaders. While our results suggest that there are inequities in the deliberation process, it is important to keep in mind that we lack the data to say whether these inequities extend to actual outcomes.

Thus, in this paper we examine the innards of the deliberative process within gram sabhas in rural India which are among the most widespread deliberative spaces in regular and routine use within a system of government in human history. By matching proceedings within transcripts of gram sabhas with the preferences of villagers we are able to see whose voices are heard, whose priorities are mentioned, and how institutions affect the deliberative dominance of elites.

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Table 1: Breakdown by round and state

| State | Round |  | Total |
| :--- | :---: | :---: | :---: |
|  | 1 | 2 |  |
| Andhra Pradesh | 0 | 18 | 18 |
| Karnataka | 6 | 31 | 37 |
| Kerala | 15 | 15 | 30 |
| Tamil Nadu | 16 | 26 | 42 |
| Total | 37 | 90 | 127 |

Table 2: Summary of gram sabha partitions

| Partition |  | Occurence indicator | Intensity |
| :---: | :---: | :---: | :---: |
| 1. Hierarchy | Village official | 1 | 0.66 |
|  |  |  | (0.22) |
|  | Villager | 0.96 | 0.34 |
|  |  |  | (0.22) |
| 2. Gender | Man | 0.99 | 0.81 |
|  |  |  | (0.22) |
|  | Woman | 0.69 | 0.09 |
|  |  |  | (0.13) |
| 3. Decision | Any decision | 0.56 | 0.02 |
|  |  |  | (0.04) |
|  | Decision for | 0.51 | 0.02 |
|  |  |  | (0.04) |
|  | Decision against | 0.17 | 0.01 |
|  |  |  | (0.02) |

Note: 1) Standard deviations of intensity measures
in parenthesis
2) For 10 percent of the discussions, the speaker's gender cannot be identified
Table 3: Summary of gram sabha topics

| Topic | Overall |  | Hierachy |  |  |  | Gender |  |  |  | Decision |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Official |  | Villager |  | Man |  | Woman |  | Any <br> Indicato | For Indicat | Against <br> Indicator |
|  |  |  | Indicator Intensity Indicator Intensity |  |  |  | Indicat | $\frac{0.24}{}$ | ndicator Intensity |  |  |  |  |
| Water | 1 | 0.28 | 0.94 | 0.19 | 0.86 | 0.09 | 0.98 |  | 0.43 | 0.02 | 0.37 | 0.33 | 0.07 |
|  |  | (0.16) |  | (0.16) |  | (0.10) |  | (0.16) |  | (0.04) |  |  |  |
| Roads | 0.94 | 0.21 | 0.87 | 0.13 | 0.80 | 0.08 | 0.93 | 0.18 | 0.40 | 0.02 | 0.34 | 0.29 | 0.13 |
|  |  | (0.15) |  | (0.14) |  | (0.09) |  | (0.15) |  | (0.04) |  |  |  |
| Education | 0.83 | 0.13 | 0.70 | 0.09 | 0.63 | 0.03 | 0.80 | 0.10 | 0.35 | 0.01 | 0.09 | 0.08 | 0.02 |
|  |  | (0.14) |  | (0.13) |  | (0.05) |  | (0.13) |  | (0.03) |  |  |  |
| Health | 0.72 | 0.09 | 0.62 | 0.07 | 0.46 | 0.02 | 0.67 | 0.07 | 0.24 | 0.01 | 0.06 | 0.05 | 0.01 |
|  |  | (0.11) |  | (0.11) |  | (0.03) |  | (0.10) |  | (0.02) |  |  |  |
| Electricity | 0.74 | 0.08 | 0.61 | 0.06 | 0.49 | 0.02 | 0.69 | 0.07 | 0.16 | 0.00 | 0.09 | 0.06 | 0.02 |
|  |  | (0.11) |  | (0.11) |  | (0.03) |  | (0.11) |  | (0.02) |  |  |  |
| Housing | 0.69 | 0.08 | 0.60 | 0.06 | 0.50 | 0.02 | 0.65 | 0.06 | 0.25 | 0.01 | 0.06 | 0.06 | 0.00 |
|  |  | (0.12) |  | (0.11) |  | (0.03) |  | (0.11) |  | (0.02) |  |  |  |
| Employment | 0.19 | 0.01 | 0.13 | 0.01 | 0.07 | 0.00 | 0.14 | 0.01 | 0.06 | 0.00 | 0.02 | 0.02 | 0.00 |
|  |  | (0.03) |  | (0.03) |  | (0.01) |  | (0.03) |  | (0.01) |  |  |  |
| Agricutural | 0.14 | 0.01 | 0.13 | 0.01 | 0.01 | 0.01 | 0.13 | 0.01 | 0.02 | 0.00 | 0.03 | 0.03 | 0.00 |
|  |  | (0.03) |  | (0.03) |  | (0.09) |  | (0.03) |  | (0.00) |  |  |  |
| Liquor | 0.03 | 0.00 | 0.01 | 0.00 | 0.03 | 0.00 | 0.02 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
|  |  | (0.01) |  | (0.00) |  | (0.01) |  | (0.00) |  | (0.00) |  |  |  |

Table 4: Household level summary

| Variable | Mean <br> (SD) |
| :--- | :---: |
| Land (acres) | 2.26 |
|  | $(5.12)$ |
| Age | 37.17 |
|  | $(12.59)$ |
| Literate | 0.74 |
| Woman | 0.49 |
| SC/ST | 0.19 |
| BC/OBC | 0.45 |
| Muslim | 0.07 |
| Politician | 0.11 |
| Priority |  |
| Water | 0.38 |
| Roads | 0.38 |
| Electricity | 0.07 |
| Housing | 0.07 |
| Health | 0.05 |
| Employment | 0.02 |
| Education | 0.01 |
| Agricultural | 0.01 |
| Liquor | 0.00 |
| $\mathbf{N}$ | 2488 |
| Note: Standard deviations, of |  |
| continuous measures, in parenthesis |  |



Table 6: Summary of preference match

|  | Match <br> indicator | Match <br> intensity |
| :--- | :---: | :---: |
| Overall | 0.90 | 0.21 |
|  |  | $(0.17)$ |
| Village official talk | 0.82 | 0.14 |
|  |  | $(0.15)$ |
| Villager talk | 0.74 | 0.07 |
|  |  | $(0.08)$ |
| Man talk | 0.90 | 0.18 |
|  |  | $(0.16)$ |
| Woman talk | 0.38 | 0.02 |
|  |  | $(0.04)$ |
|  | 0.28 | - |
| Any decision | 0.24 | - |
| Decision for |  |  |
| Decision against | 0.09 | - |

Note: 1)Standard deviations of match
intensity in parenthesis
2) Due to very reduced decision talk,
described in Table 3, match intensity
for decisions were not computed

Table 7: Preference match regression

|  | Match indicator |  |
| :---: | :---: | :---: |
| Land | 0.00102* | 0.00049 |
|  | (0.00063) | (0.00035) |
| Literate | 0.00833 | 0.00286 |
|  | (0.00946) | (0.00548) |
| Age | -0.00199 | -0.00093 |
|  | (0.00139) | (0.00070) |
| Age sq. | 0.00002 | 0.00001 |
|  | (0.00002) | (0.00001) |
| Woman | 0.01254 | -0.00060 |
|  | (0.00843) | (0.00315) |
| SC/ST | $0.03449 * *$ | -0.00451 |
|  | (0.01707) | (0.00657) |
| BC | 0.01756 | 0.00277 |
|  | (0.01305) | (0.00425) |
| Politician | 0.00203 | -0.00177 |
|  | (0.01169) | (0.00504) |
| Muslim | -0.00659 | -0.02380** |
|  | (0.02385) | (0.00987) |
| Constant | $0.90354^{* * *}$ | $0.24474 * * *$ |
|  | (0.04258) | (0.03201) |
| Observations | 2488 | 2488 |
| Adj R-sq | 0.572 | 0.564 |
| 1)Village, Priority and Round fixed effects included <br> 2)Standard errors, clustered at village level, in parentheses <br> $3)^{*} p<0.1,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$ <br> 4)The dependent variable in (1) equals 1 if the individual's priority is mentioned in the meeting, and 0 otherwise <br> 5)The dependent variable in (2) equals the fraction of lines in the transcript dedicated to the individual's priority, if the priority is mentioned in the meeting, and 0 otherwise <br> 6)The estimation is done by OLS, which in (1) implies a linear probability model |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Table 8: Preference match regression, hierarchy partition

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Officials indicator | Officials intensity | Villagers indicator | Villagers intensity |
| Land | 0.00046 | -0.00008 | $0.00196^{* * *}$ | $0.00057^{* *}$ |
|  | (0.00111) | (0.00024) | (0.00074) | (0.00023) |
| Literate | 0.01789 | 0.00075 | 0.00379 | 0.00211 |
|  | (0.01150) | (0.00394) | (0.01129) | (0.00347) |
| Age | -0.00118 | -0.00078 | -0.00092 | -0.00015 |
|  | (0.00144) | (0.00055) | (0.00217) | (0.00040) |
| Age sq. | 0.00002 | 0.00001* | 0.00001 | 0.00000 |
|  | (0.00002) | (0.00001) | (0.00003) | (0.00000) |
| Woman | 0.00495 | -0.00106 | 0.00999 | 0.00046 |
|  | (0.00877) | (0.00261) | (0.01013) | (0.00179) |
| SC/ST | 0.03000* | -0.00062 | 0.00101 | -0.00389 |
|  | (0.01731) | (0.00589) | (0.01880) | (0.00344) |
| BC | 0.02155* | 0.00166 | -0.00819 | 0.00111 |
|  | (0.01337) | (0.00344) | (0.01319) | (0.00216) |
| Politician | -0.00685 | -0.00412 | -0.00724 | 0.00235 |
|  | (0.01275) | (0.00422) | (0.01489) | (0.00278) |
| Muslim | -0.00035 | -0.01066 | -0.03665** | $-0.01314^{* * *}$ |
|  | $(0.02561)$ | (0.00782) | (0.01692) | (0.00449) |
| Constant | $0.80288^{* * *}$ | $0.16959{ }^{* * *}$ | $0.60397^{* * *}$ | $0.07515^{* * *}$ |
|  | (0.04611) | (0.02841) | (0.07440) | (0.01216) |
| Observations | 2488 | 2488 | 2488 | 2488 |
| Adj R-sq | 0.611 | 0.607 | 0.564 | 0.589 |
| 1)Village, Priority and Round fixed effects included |  |  |  |  |
| 2)Standard errors, clustered at village level, in parentheses |  |  |  |  |
| $3)^{*} p<0.1,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$ |  |  |  |  |
| 4) The dependent variable in (1) and (3) equals 1 if the individual's priority is mentioned in the officials', and, respectively, villagers' talk, and 0 otherwise |  |  |  |  |
| 5) The dependent variable in (2) and (4) equals the fraction of lines in the officials', and, respectively, villagers' talk dedicated to the individual's priority, if the priority is mentioned in the officials, and respectively, villager's talk and 0 otherwise |  |  |  |  |
| $6)$ The estimation is done by OLS, which in (1) and (3) implies a linear probability model |  |  |  |  |

Table 9: Preference match regression, gender partition

|  | (1) | (2) | (3) | (4) |
| :---: | :---: | :---: | :---: | :---: |
|  | Women indicator | Women intensity | Men indicator | Men intensity |
| Land | $\begin{aligned} & -0.00076 \\ & (0.00085) \end{aligned}$ | $\begin{aligned} & \hline-0.00005 \\ & (0.00007) \end{aligned}$ | $\begin{gathered} 0.00133^{* *} \\ (0.00066) \end{gathered}$ | $\begin{gathered} 0.00050 \\ (0.00034) \end{gathered}$ |
| Literate | $\begin{gathered} 0.00568 \\ (0.01395) \end{gathered}$ | $\begin{gathered} 0.00213 \\ (0.00174) \end{gathered}$ | $\begin{gathered} 0.00914 \\ (0.01135) \end{gathered}$ | $\begin{gathered} 0.00223 \\ (0.00481) \end{gathered}$ |
| Age | $\begin{aligned} & -0.00020 \\ & (0.00187) \end{aligned}$ | $\begin{gathered} 0.00015 \\ (0.00018) \end{gathered}$ | $\begin{aligned} & -0.00257^{*} \\ & (0.00150) \end{aligned}$ | $\begin{gathered} -0.00118^{* *} \\ (0.00058) \end{gathered}$ |
| Age sq. | $\begin{gathered} 0.00000 \\ (0.00002) \end{gathered}$ | $\begin{aligned} & -0.00000 \\ & (0.00000) \end{aligned}$ | $\begin{aligned} & 0.00003^{*} \\ & (0.00002) \end{aligned}$ | $\begin{gathered} 0.00002^{* *} \\ (0.00001) \end{gathered}$ |
| Woman | $\begin{gathered} 0.00582 \\ (0.01054) \end{gathered}$ | $\begin{aligned} & 0.00171^{*} \\ & (0.00098) \end{aligned}$ | $\begin{gathered} 0.00429 \\ (0.00953) \end{gathered}$ | $\begin{aligned} & -0.00309 \\ & (0.00292) \end{aligned}$ |
| SC/ST | $\begin{aligned} & -0.02567 \\ & (0.02403) \end{aligned}$ | $\begin{gathered} -0.00181 \\ (0.00165) \end{gathered}$ | $\begin{gathered} 0.03615^{* *} \\ (0.01687) \end{gathered}$ | $\begin{aligned} & -0.00340 \\ & (0.00492) \end{aligned}$ |
| BC | $\begin{gathered} 0.00522 \\ (0.01315) \end{gathered}$ | $\begin{gathered} 0.00062 \\ (0.00095) \end{gathered}$ | $\begin{aligned} & 0.02203^{*} \\ & (0.01299) \end{aligned}$ | $\begin{gathered} 0.00511 \\ (0.00398) \end{gathered}$ |
| Politician | $\begin{aligned} & -0.01693 \\ & (0.01519) \end{aligned}$ | $\begin{gathered} 0.00087 \\ (0.00135) \end{gathered}$ | $\begin{gathered} 0.00940 \\ (0.01304) \end{gathered}$ | $\begin{aligned} & -0.00277 \\ & (0.00520) \end{aligned}$ |
| Muslim | $\begin{gathered} -0.04285^{*} \\ (0.02710) \end{gathered}$ | $\begin{gathered} -0.00119 \\ (0.00172) \end{gathered}$ | $\begin{aligned} & -0.00835 \\ & (0.02358) \end{aligned}$ | $\begin{gathered} -0.02423^{* *} \\ (0.00985) \end{gathered}$ |
| Constant | $\begin{gathered} 0.33054^{* * *} \\ (0.07660) \\ \hline \end{gathered}$ | $\begin{aligned} & 0.01040^{*} \\ & (0.00656) \\ & \hline \end{aligned}$ | $\begin{gathered} 0.96643^{* * *} \\ (0.05185) \\ \hline \end{gathered}$ | $\begin{gathered} 0.24443^{* * *} \\ (0.03148) \\ \hline \end{gathered}$ |
| Observations | 2394 | 2394 | 2394 | 2394 |
| Adj R-sq | 0.606 | 0.555 | 0.521 | 0.559 |
| 1)Village, Priorit 2) Standard erro $3)^{*} p<0.1,{ }^{* *} p$ 4) The dependen the women's, an 5) The dependen men's talk dedic respectively, me 6)The estimation | and Round fixed eff , clustered at village $0.05,{ }^{* * *} p<0.01$ variable in (1) and (3) respectively, men's t variable in (2) and (4) ted to the individual' s talk, and 0 otherwi is done by OLS, whi | s included el, in parentheses <br> equals 1 if the individ , and 0 otherwise equals the fraction of priority, if the priority <br> in (1) and (3) implies | l's priority is me nes in the women is mentioned in th linear probabilit | oned in <br> and, respectively women's, and, <br> model |

Table 10: Preference match regression, decision

|  | (1) | (2) | (3) |
| :---: | :---: | :---: | :---: |
|  | Any, indicator | For, indicator | Against, indicator |
| Land | $0.00255^{* *}$ | 0.00270* | -0.00075 |
|  | (0.00127) | (0.00142) | (0.00063) |
| Literate | -0.02809* | -0.01841 | -0.00456 |
|  | (0.01487) | (0.01617) | (0.01016) |
| Age | -0.00204 | -0.00041 | -0.00148 |
|  | (0.00195) | (0.00186) | (0.00130) |
| Age sq. | 0.00002 | 0.00001 | 0.00002 |
|  | (0.00002) | (0.00002) | (0.00002) |
| Woman | -0.00843 | -0.00842 | -0.00219 |
|  | (0.01044) | (0.01008) | (0.00682) |
| SC/ST | -0.00878 | -0.01310 | -0.00179 |
|  | (0.02016) | (0.01998) | (0.01105) |
| BC | 0.00100 | 0.00039 | 0.00206 |
|  | (0.01559) | (0.01522) | (0.00841) |
| Politician | 0.02519 | 0.02526 | 0.00669 |
|  | (0.01707) | (0.01738) | (0.00864) |
| Muslim | -0.03546 | -0.03916* | -0.00809 |
|  | (0.02388) | (0.02260) | (0.01283) |
| Constant | $0.45100^{* * *}$ | $0.37042^{* * *}$ | $0.12237 * *$ |
|  | (0.08253) | (0.07735) | (0.05850) |
| Observations | 2488 | 2488 | 2488 |
| Adj R-sq | 0.486 | 0.496 | 0.392 |
| 1)Village, Priority and Round fixed effects included <br> 2) Standard errors, clustered at village level, in parentheses <br> $3)^{*} p<0.1,{ }^{* *} p<0.05,{ }^{* * *} p<0.01$ <br> 4)The dependent variable in (1) equals 1 if the individual's priority is mentioned <br> in any decision, for or against, taken in the meeting, and 0 otherwise <br> 5) The dependent variable in (2) equals 1 if the individual's priority is mentioned <br> in a for decision taken in the meeting, and 0 otherwise <br> 6)The dependent variable in (3) equals 1 if the individual's priority is mentioned <br> in an against decision taken in the meeting, and 0 otherwise <br> 7)The estimation is done by OLS, which implies a linear probability model |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |


| Table 11: Preference match regression, interactions |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Match indicator | Match intensity | Match indicator | Match intensity | Match indicator | $(6)$ Match intensity |
| Land | $\begin{gathered} 0.00103 \\ (0.00090) \end{gathered}$ | $\begin{aligned} & 0.00084^{*} \\ & (0.00044) \end{aligned}$ | $\begin{aligned} & \hline-0.00217 \\ & (0.00151) \end{aligned}$ | $\begin{gathered} -0.00040 \\ (0.00051) \end{gathered}$ | $\begin{aligned} & 0.00106^{*} \\ & (0.00065) \end{aligned}$ | $\begin{aligned} & \hline 0.00068^{*} \\ & (0.00035) \end{aligned}$ |
| Land*Low lit. | $\begin{gathered} 0.00108 \\ (0.00139) \end{gathered}$ | $\begin{aligned} & -0.00015 \\ & (0.00081) \end{aligned}$ |  |  |  |  |
| Land*High lit. | $\begin{gathered} -0.00733^{*} \\ (0.00433) \end{gathered}$ | $\begin{gathered} -0.00483^{* * *} \\ (0.00131) \end{gathered}$ |  |  |  |  |
| Land*Woman res. |  |  | $\begin{aligned} & 0.00491^{*} \\ & (0.00255) \end{aligned}$ | $\begin{aligned} & -0.00060 \\ & (0.00123) \end{aligned}$ |  |  |
| Land*SC/ST res. |  |  | $\begin{gathered} 0.00440^{* *} \\ (0.00194) \end{gathered}$ | $\begin{aligned} & 0.00191^{* *} \\ & (0.00078) \end{aligned}$ |  |  |
| Land* OBC res. |  |  | $\begin{gathered} 0.00609^{* * *} \\ (0.00198) \end{gathered}$ | $\begin{gathered} 0.00128 \\ (0.00125) \end{gathered}$ |  |  |
| BDO |  |  |  |  | $\begin{aligned} & -0.05157 \\ & (0.04147) \end{aligned}$ | $\begin{aligned} & -0.11774^{*} \\ & (0.07363) \end{aligned}$ |
| Land*BDO |  |  |  |  | $\begin{array}{r} -0.00113 \\ (0.00295) \\ \hline \end{array}$ | $\begin{gathered} -0.00496^{* * *} \\ (0.00143) \\ \hline \end{gathered}$ |
| Observations | 2374 | 2374 | 2488 | 2488 | 2488 | 2488 |
| Adj R-sq | 0.580 | 0.584 | 0.573 | 0.564 | 0.573 | 0.580 |

1)Levels of explanatory from Table 7 variables included but not reported
2)Village, Priority and Round fixed effects included
3)Standard errors, clustered at village level, in parentheses
3)Standard errors, clustered at village level, in parentheses
4)* $p<0.1,{ }^{* *} p<0.05,^{* * *} p<0.01$
5) The dependent variable in (1), (3), and (5) equals 1 if the individual's priority is mentioned in the meeting, and 0 otherwise 6 )The dependent variable in (2), (4), and (6) equals the fraction of lines in the transcript dedicated to the individual's priority, if the priority is mentioned in the meeting, and 0 otherwise
7 )The estimation is done by OLS, which in (1), (3), and (5) implies a linear probability model

## Annex: Examples of decisions

The following is an example of a for decision, regarding water, in a meeting in Andhra Pradesh. The second paragraph, spoken by the Gram Panchayat president - Sarpanch contains the decision:

```
Villager, BC, Male: There is only one water tank for the entire village. One more tank should be constructed.
Sarpanch, OC, Male: Government has sanctioned 3 lakhs for constructing the tank but the contractors have not started the work. We have discussed about this with higher officials and very soon this will be constructed. Also we have asked the government to allot a place for the cattle but they have not responded.
```

The following is an example of a for decision, regarding roads, in a meeting in Tamil Nadu. The second paragraph, spoken by the gram sabha secretary contains the decision:

Male (Mr. Anumanthappan, Villager, SC): Near the Mariamman temple present here that is around the temple street light facility should be provided. Also light facility must be provided within the temple. Path leading to the temple is also in a very worst condition. So I request the Panchayat that must also provide a good path for that.

Male (Mr. Chandrakumar, Grama Sabha Secretary, MBC): Through this Panchayat decision is being made that the street light facility and construction of roads in the places near the temple. I convey that to you people in this Grama Sabha meeting.

The following is an example of an against decision, regarding schools, in a meeting in Tamil Nadu. The second paragraph, spoken by the Gram Panchayat president contains the decision:

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Santhakumari, Villager, OBC: Didn't paint the school building.
President: You yourself have to look after this. There is no fund
in the Panchayat.
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[^0]:    *We are grateful to Babu Dasari Srinivas and Jillian Waid for valuable research assistance, and to SRI-IMRB for conducting the fieldwork. Valuable suggestions were provided by Timothy Besley, Francisco Ferreira, Riccardo Puglisi, Christian List, Paromita Sanyal and participants at the LSE-EOPP and DECRG seminars. We are indebted to the Dutch Government, the Swedish International Development Agency, and the British Department for International Development for financial support. The points of view expressed in this paper are entirely those of the authors and should not be attributed to the World Bank, its executive directors or its member countries.
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[^1]:    ${ }^{1}$ Also see Chaudhuri and Heller[2003] for evidence on the highly positive impact of a campaign that empowered gram sabhas in the state of Kerala.

[^2]:    ${ }^{2}$ There is some evidence analyzing the match between the preferences of individuals and the outcomes of commmunity-based decisions, a process known in that literature as "preferencetargetting" (Mansuri and Rao 2004). Chattopadhaya and Duflo[2004b] examine the role of political reservations for women on the match between women's preferences and the decisions of gram panchayats, Rao and Ibanez[2005] and Labonne and Chase[2007] study the match between preferences of households and the outcomes of commity-based decision making showing some elite dominance.
    ${ }^{3}$ Also see the Fung and Wright[2003] edited volume that has several case-studies of deliberative decision making.

[^3]:    ${ }^{4}$ Kerala is an important exception.

[^4]:    ${ }^{5}$ Speaker caste is also identified in some transcripts.

[^5]:    ${ }^{6}$ The list of keywords is available upon request
    ${ }^{7}$ The gender of the speaker was not identified in $10 \%$ of the discussions, including one full transcript
    ${ }^{8}$ For example, the occurence measure for water in officials' talk equals 1 if water is a topic in a paragraph spoken by an official and 0 otherwise. The intensity measure for water in officials' talk equals the ratio between the number of lines in paragraphs spoken by an official on the topic of water divided by the total number of lines in the transcript. It is important to note that the denominator for the intensity measures is always the total number of lines in the transcript

[^6]:    ${ }^{9}$ In Kerala, wards are of approximately the same size as villages in the other three states
    ${ }^{10}$ The survey team leader in every village walked the entire village to map it and identify total number of households. This was used to determine what fraction of households in the village were to be surveyed. The start point of the survey was randomly chosen, and after that every Xth household was surveyed such that the entire village was covered (going around the village in a clockwise fashion with $\mathrm{X}=$ Number of Households/20).

[^7]:    ${ }^{11}$ Note that all $T_{g}$ are subsets of the universe of topics $U=\{$ water, roads, electricity, housing, health, education, employment, agricultural, liquor\}

[^8]:    ${ }^{12}$ There are topics discussed in the gram sabha that are not expressed as priorities by the households. The priority topics of the households, taken together, take up 53 percent of the meetings.

[^9]:    ${ }^{13}$ Defined as current or former Gram Panchayat presidents or ward members
    ${ }^{14}$ The for and against match likelihood add up to more than 28 percent, because it is possible for a topic to receive both a positive and a negative decision in the same meeting

[^10]:    ${ }^{15}$ Forward Caste is the omitted category

[^11]:    ${ }^{16}$ The regressions include village fixed effects, so the level of the institutional measure is absorbed in these fixed effects
    ${ }^{17}$ Literacy has been classified by quartiles. Low literacy villages have literacy below 33 percent(1st quartile); average literacy - between 33 and 57 percent(2nd and 3rd quartile); high literacy - above 57 percent(4th quartile)

[^12]:    ${ }^{18}$ These results are available upon request
    ${ }^{19}$ It is possible that the presence of the BDO is endogenous, but the endogeneity is more likely due to village characteristics which are absorbed in the fixed effects

