Participatory statistics to measure prevalence in bonded labour hotspots in Tamil Nadu: Report of preliminary findings of the Baseline study

April–September 2016

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Acknowledgements

The team would like to extend its gratitude to all the partner organisations that participated in the research process – attending the training, sharing feedback with their respective teams, coordinating during the quality assurance visits and spot checks and helping to draw this process to a close. We are also grateful to the community members who gave their time to be part of the process and discussions that followed. Their inputs have enriched our insights and contributed greatly to this baseline prevalence study. We would also like to thank Moulasha Kader for his technical support and Catherine Müller for her technical advice on the quantitative data analysis.

The team would also like to record its gratitude to the Freedom Fund, especially Ginny Baumann for supporting the team from the initial design phase of this process, and to the finance and administration teams at Praxis and IDS for providing their support throughout the field process.

Photo credits: Praxis Institute for Participatory Practice India

List of abbreviations

HH	Household
IDS	Institute for Development Studies
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NGO	Non-governmental organisation

1. Introduction

1.1 Background

The state of Tamil Nadu in Southern India plays an important role for both the Indian textile industry and for global brands and retailers. Much of the country's spinning, power loom and handloom units are located in Tamil Nadu. The cotton-spinning sector is the backbone of Tamil Nadu's textile industry. One of the region's oldest and most prestigious manufacturing sectors, it employs thousands of workers and has been the leading source of the state's revenues, exports, and industrial entrepreneurship. Tamil Nadu accounts for over 65% of other cloth preparation prior to manufacture.[1] The textile industry in Tamil Nadu, as in several other Asian countries, builds on existing gender inequalities taking advantage of gender wage gaps by relying on the production of labour-intensive goods that are produced by women.[2] The textile industry in Tamil Nadu has been reported to be exploiting young women workers in the spinning and textile units and using manipulative schemes that reinforce gender inequalities. The media has widely reported on some of these schemes and the abuses that women and girls suffered over the last few years.[3]

The Freedom Fund, along with 11 partner organisations in Tamil Nadu, is focusing geographically on hotspots/locations where forms of bonded labour are more prevalent. It is working towards reducing trafficking, bonded labour and harmful child labour. Between 2015 and 2018, under the overall objective of reducing the prevalence of bonded labour in four districts of Tamil Nadu, sub-objectives are:

1. Residents in 240 targeted highly affected communities prevent vulnerable individuals entering forced labour schemes. They ensure sustainable freedom and wellbeing of bonded labour survivors.
2. At least 3,000 workers in sites of high exploitation strengthen their resistance against violation of rights and freedoms
3. Spinning-mill owners make improvements in worker protection and freedoms.

Intervention districts are highlighted in grey in the maps[4] below:

1.2 Study context and methods

As part of this process - an independent evaluation of the hotspot - being carried out by the Institute of Development Studies UK and Praxis India – there is a strong focus on the relevance and effectiveness of partners' work. The study aims to seek answers to an estimation of prevalence of bonded labour across Freedom Fund areas: on how prevalence differs among populations with different socio-economic characteristics; on the indicators that unpack whether a family is more resilient or prone to bonded labour

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[1] Solidaridad (2012) Understanding the Characteristics of the Sumangali Scheme in Tamil Nadu Textile & Garment Industry and Supply Chain Linkages. Research Report.
[2] UN Women (2016) Towards gender equality in Viet Nam: Making inclusive growth work for women. E. Braunstein (2015) Economic Growth and Social Reproduction: Gender Inequality as a Cause and Consequence. UN Women Discussion Paper No. 5.
[3] Solidariad (2012).
[4] Maps provided by the Freedom Fund

(such as loans or alcohol consumption); and on whether the method being used for measuring bonded labour is likely to detect the expected change between baseline and endline.

While individual NGO partners have monitoring and evaluation systems to measure the progress of their intervention, the aim of our work is to assess the impact of interventions across the Freedom Fund hotspot as a whole.

The Freedom Fund supports local NGO intervention programmes currently in existence in six hotspots where there are known to be high concentrations of modern-day bonded labour (in this case, Tamil Nadu). The aim of each hotspot programme is to reduce prevalence in the hotspot as a whole - with partners working in specific communities on: direct prevention, protection and prosecution interventions; improving the wider enabling environment for freedom; increasing civil society's capacity for sustained and effective anti-bonded labour action and supporting rigorous research and evaluation on bonded labour. Similar processes are currently taking place in Bihar and Uttar Pradesh in Northern India and in other parts of the world.

Partners have been chosen based on the following criteria (though not all partners need to be strong in each area): (1) Addressing bonded labour and bonded labour; (2) Involvement in rescue/interception; (3) Equipping survivors through effective support for recovery and reintegration; (4) Positioning to contribute to systemic change, including through community-based reflection and collective action against bonded labour; (5) Engagement in local, district, state and/or national level advocacy; (6) Involvement in legal services for victim protection and/or prosecution of those who hold or traffic bonded labourers; (7) Capacity and organisational reliability, trustworthiness, and transparency.

An empirical measurement of interventions and change processes requires documentation of at least two points in time to offer comparison from start to finish, which is why a baseline and end-line is being facilitated for the overall hotspot programme itself. As there was no prevalence data available, the selection of locations of work was based on anecdotal evidence that is rooted in experience of the partners – some of whom have worked in these communities for many years, as well as research studies carried out by some NGOs. This led to the creation of criteria for the selection of the four locations of Erode, Namakkal, Virudhunagar and Dindigul, including that they needed to have a significant number of mills existing in the district with workers going into those mills each day and a large number of workers moving from source villages to go to live inside mill hostels. This evidence often included communities having the typical characteristics associated with high prevalence of forms of bonded labour in India, such as being primarily Dalit or Adivasi, having high levels of landlessness and poverty, and government safety nets having a poor reach. The partners are intervening in 338 hamlets in total.

The current baseline study was seen as the first step in providing context for the partners' work and offering inputs to their ongoing programmes to meet the goal of decreasing the prevalence of bonded labourers during the intervention period. The aim of the prevalence work is not to show overall prevalence for the districts but to show prevalence in the intervention areas and how it changes over time.

The choice of participatory statistics as a method for this baseline was influenced by a range of different factors including: multiple working definitions and understandings of bonded labour; the difficulties associated with identifying hidden populations; the extractive nature of traditional surveys; and the need to give feedback to the communities affected so that they can validate the results and take action themselves.[5] Participatory census and generation of numbers was seen as a methodology with potential for overcoming some of the issues of traditional survey methods. With use of participatory tools such as a social map or other similar tools, details of disaggregated socio demographic data of families and village institutions can be collected, analysed and discussed at the local level. When statistical principles are used, data can be analysed at a higher aggregated level, in this case the hotspot level. Having been successfully used for monitoring and evaluation in other contexts, participatory statistics was selected as the method for measuring prevalence and other indicators of change as part of an integrated mixed methods approach including life story analysis, system mapping and action research.

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[5] More details are available in CDI Practice Paper, Number 16, February 2016: http://cdimpact.org/publications/using-participatory-statistics-examine-impact-interventions-eradicate-slavery-lessons

The experiment in the use of participatory statistics for collecting prevalence data on bonded labour has wider importance within the global movement, as anti-bonded-labour agencies around the world struggle to generate accurate prevalence data in a way that is cost-effective and therefore scalable. It is consequently particularly important to explore the validity and reliability of the results from this research so that we can inform the wider movement about the extent to which this method can be re-used.

1.3 Tool development and sample

The hotspot area in Tamil Nadu is a complex and dynamic setting where bonded labour co-exists with other forms of labour exploitation and many other types of socio-economic and political inequalities. Each partner NGO has its own expertise and history.

Seven NGOs were involved in a life story collection and analysis workshop. The purpose was to understand the systemic causes of bonded labour, identify how programmes should intervene in order to be most relevant, and what the indicators of a significant change would be, according to individuals living in contexts of bonded labour. The key themes that emerged from the joint analysis of 308 life stories included poverty, alcoholism, illiteracy, illness, accident at work, death in family and debt. Participants then took these life stories to explore causal relations between these themes, creating a system wall-map using arrows and lines. This map showed causal relationships and systemic feedback loops. The qualitative analysis of the pathways and indicators of change from the map and the clustered analysis generated three indicators of change over time and one diagnostic indicator. Following the life stories exercise, we identified three main indicators to use within the statistics at baseline and follow up: (1) prevalence and incidence of bonded labour,[6] (2) development of collective action by those affected by bonded labour based on group discussions, and (3) access to health services. These are the indicators that we use to measure change.

In addition, we looked at the following diagnostic indicators; religion, caste, type and size of land ownership, access to MGNREGA, having a bank account, family size, family composition, access to school, school drop-out rate, presence of traffickers and type of trafficking, loans, borrower, purpose of loans, reason for loans, early marriage, alcohol addiction in the family.

Based on a joint analysis and testing of the tool, we narrowed the categories of bonded labour down to four: (1) bonded labour in the mill within the village; (2) bonded labour in the mill outside the village; (3) bonded labour doing other work within the village; and (4) bonded labour doing other work outside the village.

In addition to partners defining their own goals and indicators, the programme has an upwards accountability and reporting function. The danger of this, as with all such systems, is that monitoring and evaluation can be perceived as a dull report-writing exercise, rather than an opportunity for learning, analysis and sharing to generate new knowledge and inform change strategies. Therefore, the IDS and Praxis team were keen to evolve a tool that would utilise the expertise of field staff, be interesting and also encourage the sharing of experiences of community members in a simple, non-threatening manner. A two-part prevalence measurement process was evolved, through which each NGO collected data in a set number of predetermined hamlets. Part 1 was a mapping exercise to generate background details on the hamlet and to help with a line listing of houses to randomly select respondents. Part 2 was facilitated a week or 10 days after the mapping exercise and used a pictorial self-assessment tool to generate some detailed information about certain households in the hamlets, serving as the baseline data. Ten to fifteen individuals from randomly selected households provided the information for the survey in a safe space facilitated by NGO staff. Respondents indicated the appropriate answers to the questions for themselves and their two adjacent neighbours on the sheets – one set of sheets per household, giving a total of three households per respondent. The advantage for non-literate community members was that all questions were depicted

[6] Operational definition of bonded labour used in the study. There needs to be an advance or agreement – advance, whether in cash or in kind or partly in cash or partly in kind, made by one person who is also demanding the labour of the borrower as a means of repayment for a loan.; PLUS any one of these remaining four: no freedom of movement – physically constrained or has restrictions placed on his/her freedom of movement; less than the minimum wages – a remuneration which is less than the current notified minimum wage under the minimum wages act; no freedom of employment – absence of freedom to choose one's employment or other means of livelihood; no freedom of market place – loss of freedom to sell one's labour in open market. These have been detailed in the guidebook.
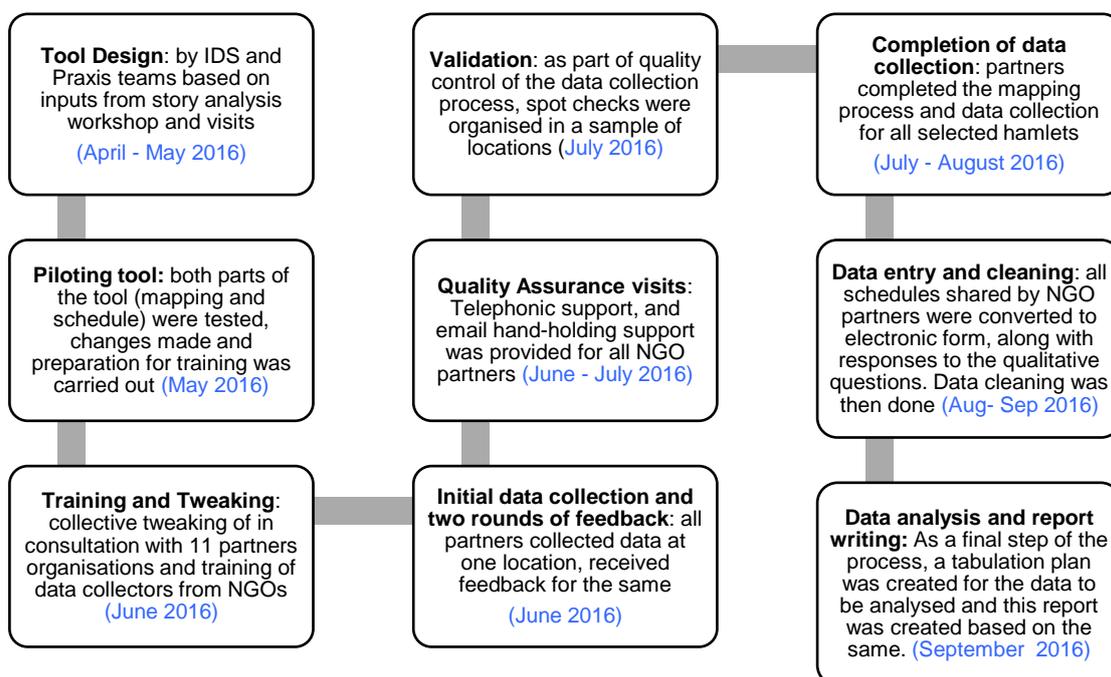
pictorially and they had to encircle the appropriate response. They could also clarify with other respondents, in case they were unsure. In each village after data collection was completed and compiled there was a village-level discussion on the results of the survey and the pathways into and out of slavery. A summary of the results is given in Annex 5.

One of the criticisms of participatory quantitative methods is that they have lacked statistical power, resulting in conclusions that they lack statistical robustness. So, for this study, we adopted rigorous statistical methods to overcome this difficulty. As no survey data was available we had to use an estimate of current prevalence to calculate our sample size. Overestimating baseline prevalence could result in a sample too small to detect changes. But given that the NGOs had to collect the data and that this would take them away from other activities, we also wanted to keep the sample small enough for them to manage. We thought it was important that NGOs themselves were involved in estimating expected reductions in bonded labour prevalence because they work in these areas and it would help them to reflect on their own assumptions. Their estimates are in the table below:

	NGO estimated % of households now	NGO estimated % of households in 2 years	Sample required baseline	Sample required repeat
SSSSS	14%	5%	165	165
TEST	18%	10%	294	294
WORD	19%	10%	239	239
Child Voice	30%	10%	62	62
Peace Trust	45%	30%	162	162
Odam	19%	9%	188	188
Speech	35%	25%	328	328
Leaf	16%	7%	196	196
READ	48%	27%	82	82
Van Muhil	25%	15%	250	250
Vizhuthugal	48%	20%	48	48
Don Bosco	12%	7%	539	539
	Average estimated baseline 27.41		Average 212.75	

The estimated expected reduction in bonded labour varied between the NGOs. Their estimations gave an average baseline of 27% and an average expected reduction of 10% during the project period. For this a sample size of 2,681 was sufficient for 9 out of 12 NGOs – if their estimates were accurate.

This ensured that the sample size was big enough to measure the changes in at least nine of the individual NGOs in addition to detecting a change of less than 5% across the hotspot as a whole. For the hotspot as a whole we took a more conservative estimated reduction from 27.5% to 24%, which required 2,449 households for the baseline and the same number for the end line. This meant that even if NGOs delivered a smaller sample we still had enough households to assess changes in the hotpot as whole.

A distribution of these households across partner NGOs as well as hamlets in both states, is below:

District	NAMAKKAL			VIRUDHUNAGAR				ERODE	DINDIGUL			
NGO	WORD	LEAF	Don Bosco	ODAM	Vaan Muhil	TEST	SPEECH	READ	PEACE	Child Voice	SSSSS	Total
HH per NGO	270	270	270	270	270	270	270	270	270	270	270	2970
Hamlets per NGO	6	6	6	6	6	6	6	6	6	6	6	66

There are 358[7] villages/hamlets covered by the 11 NGOs. Each NGO partner had an equal workload and visited six hamlets. In order to select these hamlets, each NGO shared a list of hamlets that it is currently operational in. They also indicated which of these hamlets had prior interventions on the issue of bonded labour, which were taken off the eligibility list of the current baseline. The average household size across the hamlets is 179.8, ranging from 72 in Avathipalayam in Namakkal to 284 in S. Thiruvenkatapuram in Virudhunagar.

An average number of households per hamlet were then shared and random numbers were applied to select the final list of hamlets. To arrive at the desired sample size across all partners, an average of 90 respondents (who would share data about 270 households) per NGO had to be met. Going by an average number of 100 households per hamlet, each NGO had to select 15 respondent households.

1.4 Study process

The process followed by the study team for the baseline study, is detailed in the image below, along with a timeline of the same:

Tool Design: by IDS and Praxis teams based on inputs from story analysis workshop and visits (April - May 2016)

Validation: as part of quality control of the data collection process, spot checks were organised in a sample of locations (July 2016)

Completion of data collection: partners completed the mapping process and data collection for all selected hamlets (July - August 2016)

Piloting tool: both parts of the tool (mapping and schedule) were tested, changes made and preparation for training was carried out (May 2016)

Quality Assurance visits: Telephonic support, and email hand-holding support was provided for all NGO partners (June - July 2016)

Data entry and cleaning: all schedules shared by NGO partners were converted to electronic form, along with responses to the qualitative questions. Data cleaning was then done (Aug- Sep 2016)

Training and Tweaking: collective tweaking of in consultation with 11 partners organisations and training of data collectors from NGOs (June 2016)

Initial data collection and two rounds of feedback: all partners collected data at one location, received feedback for the same (June 2016)

Data analysis and report writing: As a final step of the process, a tabulation plan was created for the data to be analysed and this report was created based on the same. (September 2016)

Validation

As a quality control mechanism of this prevalence study, validation of the data was undertaken by Praxis to explore the extent of deviation from the data collected by the partners and to understand the reasons for it (see Annex 3). The validation visits were to be done in five per cent of the total of 2,970 households (i.e. 155 households) using a random sample. Visits were made to all 11 NGOs covered under the study. In each of the organisations, data for between nine and twelve households was to be collected from one location per organisation. The locations were those where the partner NGO had already collected data previously. The locations and households were selected randomly. In certain locations data was collected for more than 12 households. The survey tool with 21 questions were redone with respondents from 155 households with the same respondent who shared details during the study (this was verified by the individual (because their name was on the original form, the other respondents in the group and the NGO colleague). If another family member chose to represent the respondent, they were part of the process, but the data from their sheets was not included in the analysis. Most questions – including the questions on the prevalence of bonded labour had less than 10% variation. The two questions that had most variation were about the causes of the loans and about alcoholism. These problems were discussed with the NGO and addressed. We conclude that the results are valid but that caution must be made with statements about alcoholism and the reasons for taking out loans.

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[7] Child Voice =30; Don Bosco=25; LEAF=40; ODAM=25; PEACE=30; READ=30; SPEECH=30; SSSSS=25; Vaan Muhil =20; WORD=83 and TEST =20

1.5 Ethical considerations

This baseline is part of a larger research project, which has been reviewed and approved by the IDS Ethical Review Board.

1.6 Study limitations and challenges

The focus of the study was to go beyond token participation and move to research grounded in the community with community members being able to share information and insights through discussions. The challenges associated with the community process included: crowd management due to people's (mistaken) anticipation of a Government scheme or NGO programme making beneficiary lists; mingling between participants hailing from various social categories (especially across caste hierarchies); communication gaps or delays between senior staff at the organisation and the front line staff carrying out the research; difficulties in interacting with female respondents due to gender roles restricting women's ability to publicly speak on some issues; and timeline slippages due to festivals and elections.

In addition to these challenges, some limitations of the study include:[8]

- Inability of a baseline of a cross-sectional design without a control group to detect causal relations
- A baseline designed to measure changes within intervention areas of selected NGOs in a certain geographic location cannot be used to draw conclusions about prevalence outside these areas
- The tool was prepared for use by largely non-literate groups and not all data could be tallied up for a group analysis while the group members who had given the information were waiting. Therefore, we focussed on the "why" aspect of the prevalence. Other findings will be analysed and discussed with the NGO together with other issues that came up during the group discussion based on the notes
- In the early stages of intervention, people tend to perceive coercive work relationships as normal (especially in a context of inter-generational bonded labour) and that therefore as awareness about rights continues, then over the short term, people may increasingly be able to perceive the exploitation and force within the relationship and so reported prevalence may increase. Trust dynamics raise important issues in a context where actual reductions in prevalence might be expected to be relatively small. It is not unlikely that a programme's impact in terms of a decrease in prevalence might only be measurable after many years and might actually lead to a reported increase during the first years.

2. Findings

This chapter details the profile of the respondents and the bonded labour status of the households, with further comparisons made based on socio-economic and demographic profile of the households about which data is shared. In the charts below terms such as 'exclusively bonded labourers' refer to working members of the household.

2.1 Background information
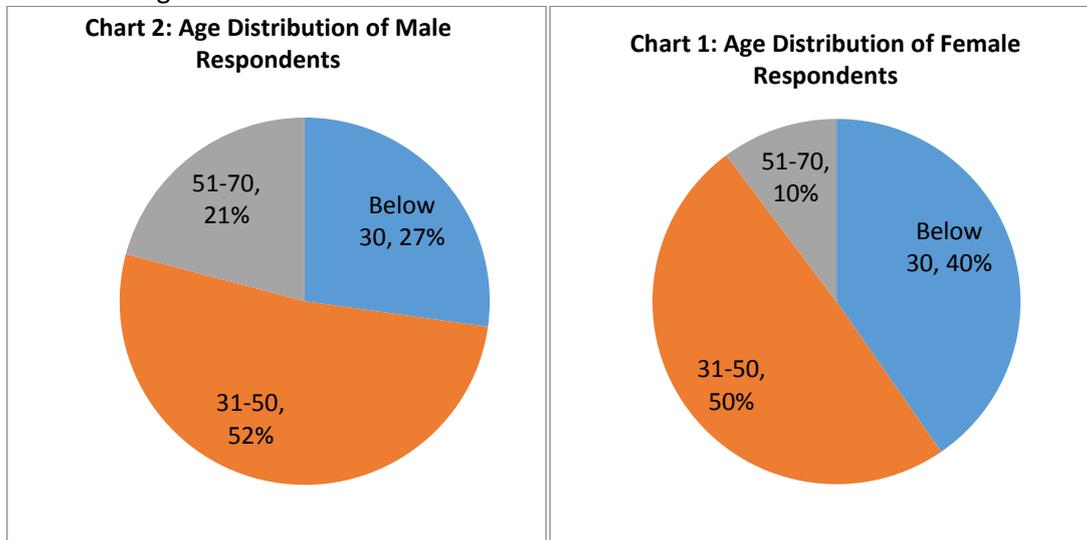
2.1.1 Respondent profile

A total of 970 respondents were met across 66 hamlets in locations covered by 11 NGOs. The total number of households about whom data was generated is 2,970, given that each respondent shared data for three households each: their own and their immediate neighbours on either side of the house. (For most of the sections below, 30 records were excluded and only 2,940 have been considered. This was because 15 of these

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[8] The validation process also highlighted some issues which were ironed out with individual NGOs. These are detailed in Annex 3

had four or more non-working family members and eight reported having only one member in the family, who was not working).

60% (597) respondents were female and 40% (393) were male. The aim of all the NGOs was to try and interact with a group of female respondents in 50% of the hamlets they visited. They were free to choose this based on experience of where more women were likely to come and sit together as a group – as it turns out, most men were away at the time that NGOs went to collect data and as a result, there is a higher number of female respondents. Their age distribution is detailed in the Charts 1 and 2:

Chart 2: Age Distribution of Male Respondents

- 51-70, 21%
- Below 30, 27%
- 31-50, 52%

Chart 1: Age Distribution of Female Respondents

- 51-70, 10%
- Below 30, 40%
- 31-50, 50%

Among both male and female respondents, between 50 and 52% were from the 31-50-year age group.

2.2 Bonded labour status and types

2.2.1 Bonded labour status

As noted in the first chapter, respondents were asked to indicate how many adults and children, disaggregated by gender, in each household, were working. For each such individual, the respondents then indicated numbers 1 to 5, to specify the nature of bonded labour or the absence of it. In this section of the report, if a household was found to have one working member who was in any form of bonded labour, those set of households have been clubbed into a category referred to as "At least one person in bonded labour" and if it was found that all the working members of a household, including children (those below 14) were in bonded labour, those set of households have been referred to as "All working members in bonded labour".

A summary of the overall status of the working population and status of bonded labour among them is presented in Chart 3:

Chart 3: Summary of Status of Bonded Labour (BL) in study area (n=2970)

- Non working, 30, 1%
- BL and non BL, 538, 18%
- Exclusively BL, 1066, 36%
- Households with no BL, 1336, 45%
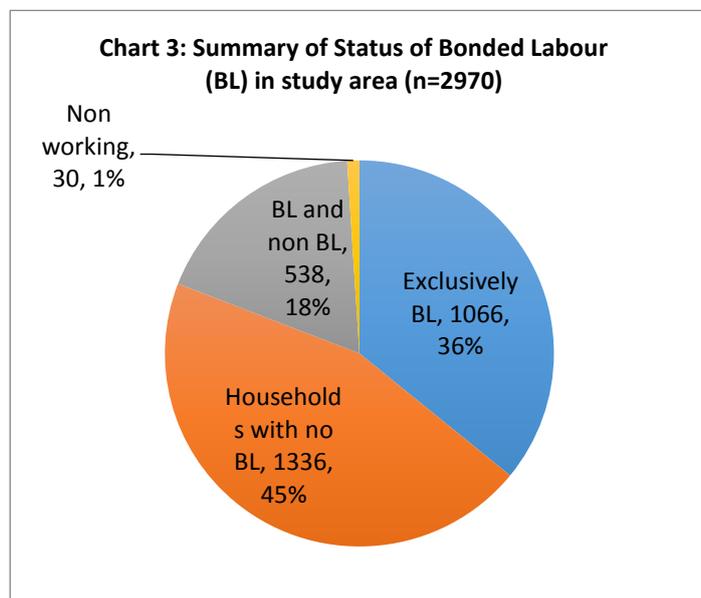
Out of all the households, only 30 households (1% of overall households) had no working members. These tended to be households with either just one or two people, often old or being supported by either children or extended families.

45% of the households had no bonded labourers. 36% had all family members in bonded labour and 18% households had at least one family member in bonded labour.

Chart 3A below provides a district-wise division of the bonded labour. Dindigul recorded 59% of households in their 18 hamlets as having exclusively members in bonded labour and the

corresponding percentages for Erode and Namakkal are 41 and 25%. Virudhunagar (67%) and Namakkal (63%) reported the households as having non-bonded labour members.

Chart 3A: State-wise distribution of bonded labour (BL)
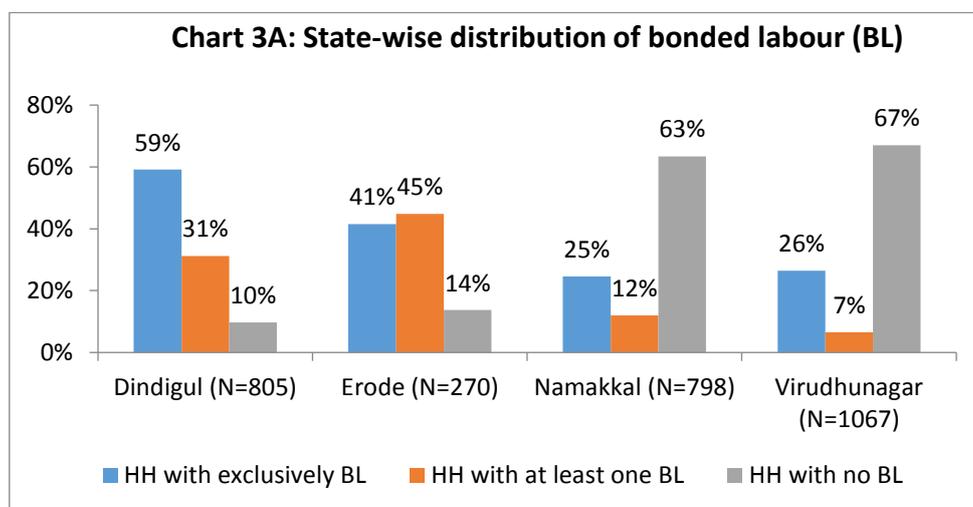
Of households that report any form of bonded labour, 93% of the working girls (female 18 years and below) work in the village, mostly in mills inside the village compared to 88% of the working boys who are in some form of bonded labour (mills, agriculture and others). During the discussions, it was disclosed that given a choice, parents choose not to send their children to work outside the village because they were less likely to be able to manage by themselves, living far away from home. The prevalence of bonded labour among the persons below 18 years old is detailed in the table below:

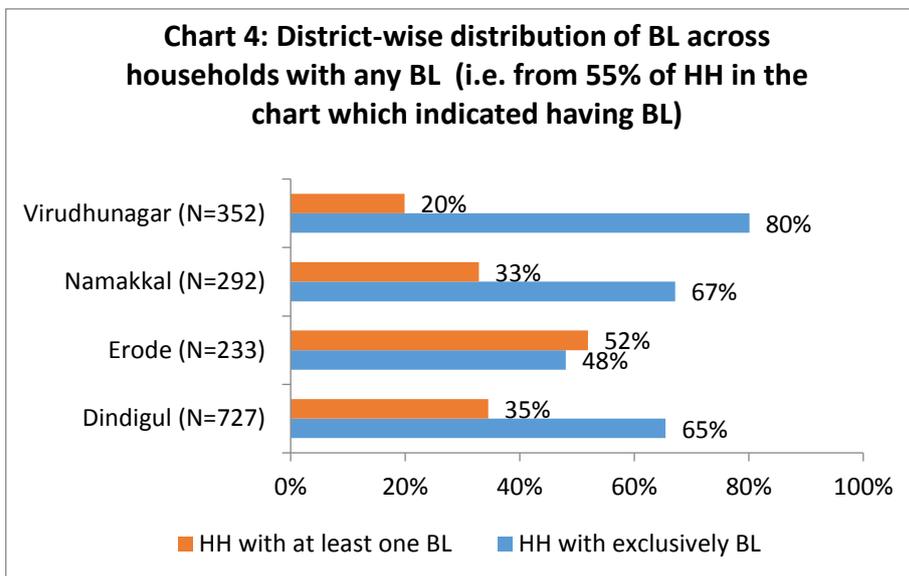| Status of Bonded labour (N=2940)	% of HHs with bonded labourers	No. of bonded labourers	Status of Bonded labour (N=2940)	% of HHs with bonded labourers	No. of bonded labourers
Bonded labour in mills inside the villa			**Other work inside village**		
Boys below 18 and 18	2.31%	74	Boys below 18 and 18	1.60%	48
Girls below 18 and 18	4.56%	144	Girls below 18 and 18	0.82%	26
Boys or Girls below 18 and 18	6.16%	218	Boys or Girls below 18 and 18	2.31%	74
Bonded labour in mills outside the village			**Other work outside the village**		
Boys below 18 and 18	0.82%	26	Boys below 18 and 18	0.44%	14
Girls below 18 and 18	1.19%	36	Girls below 18 and 18	0.00%	0
Boys or Girls below 18 and 18	1.87%	62	Boys or Girls below 18 and 18	0.44%	14
			Any bonded labourer below 18 and 18	9.94%	368

Prevalence of different forms of bonded labour per NGO

Dindugul	All family members in bonded labour	At least one bonded labourer	No bonded labour
SSSSS (270)	99%	1%	0%
PEACE (270)	12%	66%	22%
Child Voice (265)	66%	26%	7%
Erode	**All family members in bonded labour**	**At least one bonded labourer**	**No bonded labour**
READ (270)	41%	45%	14%
Namakkal	**All family members in bonded labour**	**At least one bonded labourer**	**No bonded labour**
WORD (263)	69%	10%	21%
LEAF (270)	6%	26%	69%
Don Bosco (265)	0%	0%	100%
Virudunagar	**All family members in bonded labour**	**At least one bonded labourer**	**No bonded labour**
ODAM (265)	6%	6%	87%
TEST (270)	89%	6%	6%
SPEECH (268)	6%	9%	85%
Vaan Muhil (264)	4%	5%	91%

Hotspot-level prevalence rate

Location and NGO	Prevalence rate amongst surveyed households	Hotspot-level average using simple average across sampled hamlets	Averages using inflation weights within NGO hamlets	Hotspot-level average using inflation weights within NGO Hamlets
Dindugul				
SSSSS (270)	100%		100.00%	
PEACE (270)	78%		78.56%	
Child Voice (265)	93%		93.28%	
Erode				
READ (270)	86%		86.22%	
Namakkal				
WORD (263)	79%		74.58%	
LEAF (270)	31%)		32.50%	
Don Bosco (265)	0%		0	
Virudunagar				
ODAM (265)	13%		13.61%	
TEST (270)	95%		95.24%	
SPEECH (268)	15%		17.14%	
Vaan Muhil (264)	9%		8.38%	
Total	**54.4%**		**53.49%**	

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[9] With a mean of 0.5385416 (53.85% of households with at least one member in bonded labour), a standard deviation of 0.4985971, and a desired confidence level of 90%, the corresponding confidence interval would be ± 0.015; meaning that we can be 90% confident that the true population mean falls within the range of 52.34 to 55.37%.

The distribution of bonded labour status by partner organisations within the district shows a varied picture, as some partners seem to have significantly high number of households with all working family members in bonded labour while other partners from the same district recorded the highest number of households with non-bonded labourers. In Dindugul, SSSS has 99% households with all family members in bonded labour, WORD in Namakkal has 87% of such households and TEST in Virudunagar recorded 94% members in bonded labour. These are big variations.

Chart 4: District-wise distribution of BL across households with any BL (i.e. from 55% of HH in the chart which indicated having BL)

Note that Chart 4 only shows the breakdown between those households that are affected by bonded labour. We specifically followed up in the places that reported 100% bonded labourer or "no bonded labourer" and spent time with them discussing the situation. In the 100% bonded labourer category everyone goes to work after getting an advance.

Getting an advance is the most important condition for employment in some parts of Dindigul district.

In some parts of Namakkal district, all employed persons work in the mills or do other work without getting an advance. If they need loans, they go for other sources rather than taking advances. We have validated this with the NGOs too.

In some parts of Virudhunagar district, in some villages there are many bonded labourers while in others there are none. To validate these differences, we asked the villagers and the NGOs regarding the situation. They have validated the situation in each village and confirmed it with the responses from the people. In the villages where there were no bonded labourers they go to work without getting an advance. They are free to get away with the work whenever they are not interested.

Clarifications per NGO are given in a table below:

Dindugul	All family members in bonded labour	At least one bonded labourer	No bonded labour	
SSSSS (270)	99%	1%	0%	The coordinator confirmed clearly that in these places many are bonded as family members in the mills or in other work. The director also confirmed this. They have facilitated the trade union for women mill workers and lot of advocacy has been done by this NGO. Recently they have raised their voice against the Minister's statement on NO Bonded Labour in Tamil Nadu.

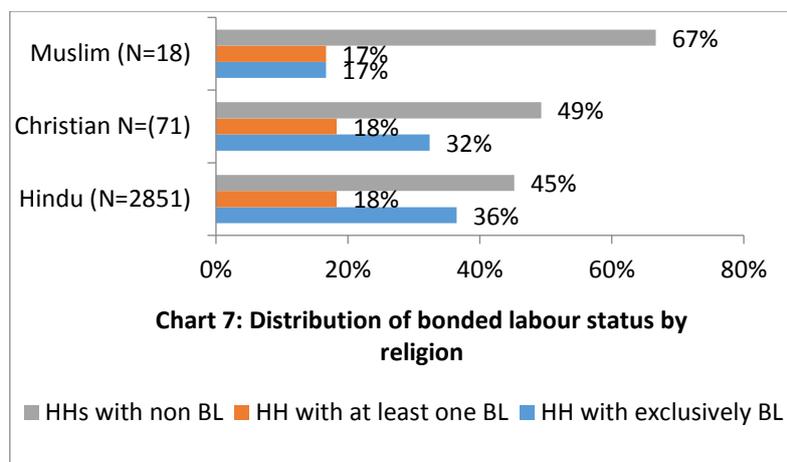|	All family members in slavery	At least one slave	Non slave	
PEACE (270)	12%	66%	22%	As per the data as well as discussion with partners, bonded labour is relatively high in Dindigul district. In these villages some family members are bonded labourers and others work in various other work categories.
Child Voice (265)	66%	26%	7%	Mostly, flower fields surround these villages and people work as bonded labourers in the flower fields as well as millwork. Even children work in the flower fields after school. Both mill work and flower fieldwork is prevalent and many people are working in bonded labour.
Erode	**All family members in slavery**	**At least one slave**	**Non slave**	
READ (270)	41%	45%	14%	Most of the villages are Dalit villages and people go for work mainly to get a good advance. Mostly they go for millwork as well as work in agriculture fields.
Namakkal	**All family members in slavery**	**At least one slave**	**Non slave**	
WORD (263)	69%	10%	21%	These areas are surrounded by mills and power looms. In these places many are bonded as family members in the mills.
LEAF (270)	6%	26%	69%	-
Don Bosco (265)	0%	0%	100%	The coordinator and Director confirmed that there is no one going to millwork or other work based on advances in these villages. During the spot check visit, we were asking many cross-questions to understand why there is no slavery. The village where we went for a spot check visit was a very poor village but still people could live with the money earned as a coolie, although they have debts. These villages are free from bonded labour but living conditions are extremely poor.
Virudunagar	**All family members in slavery**	**At least one slave**	**Non slave**	
ODAM (265)	6%	6%	87%	-
TEST (270)	89%	6%	6%	The coordinator and the Director confirmed that the families get an advance as a condition of entering into the mills.
SPEECH (268)	6%	9%	85%	-
Vaan Muhil (264)	4%	5%	91%	-

2.2.2 Bonded labour types

Of the households that reported any form of bonded labour, the following section details the location (i.e. whether inside or outside the village), gender and age of bonded labour. The chart below details these categories of bonded labourers amongst each.
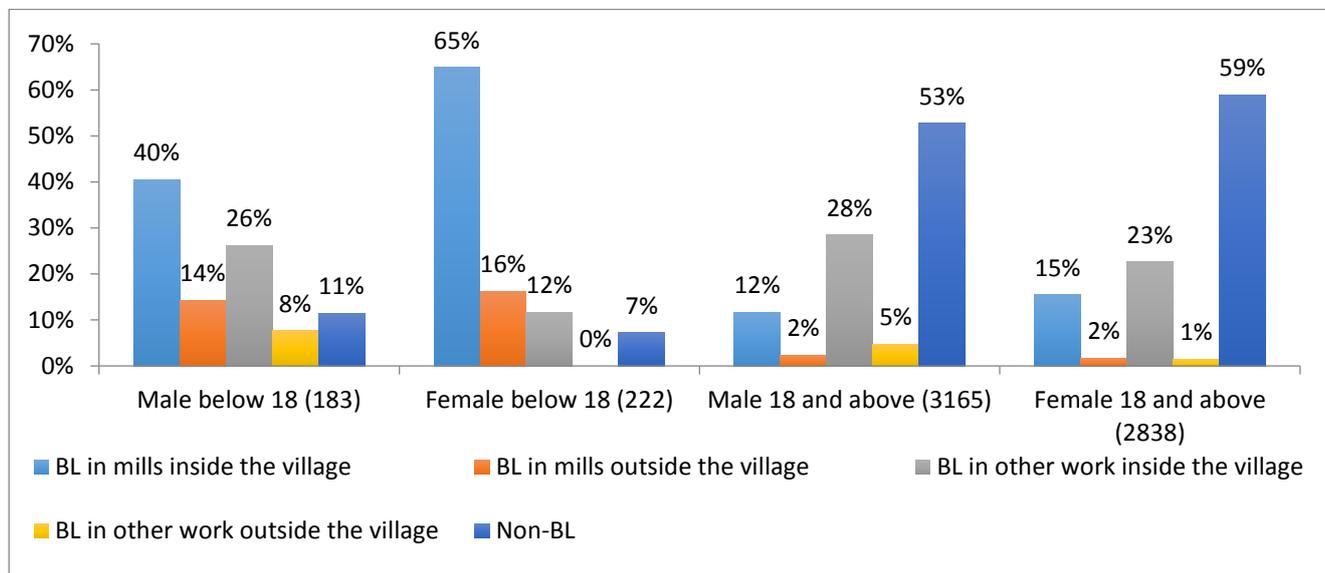
- Among the men and women who are in bonded labour, most are in bonded labour or trafficked <u>outside</u> the village.

- Among the boys and girls who are in bonded labour, larger numbers are in some form of bonded labour <u>inside</u> the village itself. Overall, one-tenth of the households have at least a boy or girl bonded labourers below the age of 18 years. Of all the bonded labourers below 18, a majority (56%) are girls and most of them work in mills inside the village. It is observed that none of the girls below 18 are bonded in other work outside the village.

2.3 Demographic and socio-economic linkages with bonded labour

2.3.1 Religion and social group distribution of households

Chart 7: Distribution of bonded labour status by religion

Muslim (N=18): HHs with non BL 67%, HH with at least one BL 17%, HH with exclusively BL 17%
Christian N=(71): HHs with non BL 49%, HH with at least one BL 18%, HH with exclusively BL 32%
Hindu (N=2851): HHs with non BL 45%, HH with at least one BL 18%, HH with exclusively BL 36%

■ HHs with non BL ■ HH with at least one BL ■ HH with exclusively BL

All respondents were from one of three religions – Hindu (97%), Christian (2.4%) and Muslim (0.6%). The Dindigul district sample did not have a single Muslim household. A household distribution by religion and district is presented in the chart below:

While 46% of Hindu households, 50% of Muslim households and 67% of Christian households reported no bonded labourers, the chart alongside shows the distribution of those in bonded labour by religion. The Muslims category is based on data for 18 households and therefore seems extremely low at 33% households having all family members in bonded labour.

The social groups' distribution showed that 55% households were scheduled caste, 44% were from the Other Backward Classes (OBC) category, only 9 households (0.31%) from the scheduled tribes' category and 11 households (0.31%) provided no response to this question. A household distribution by caste status by districts and a distribution of bonded labourers by social category is in the chart below.
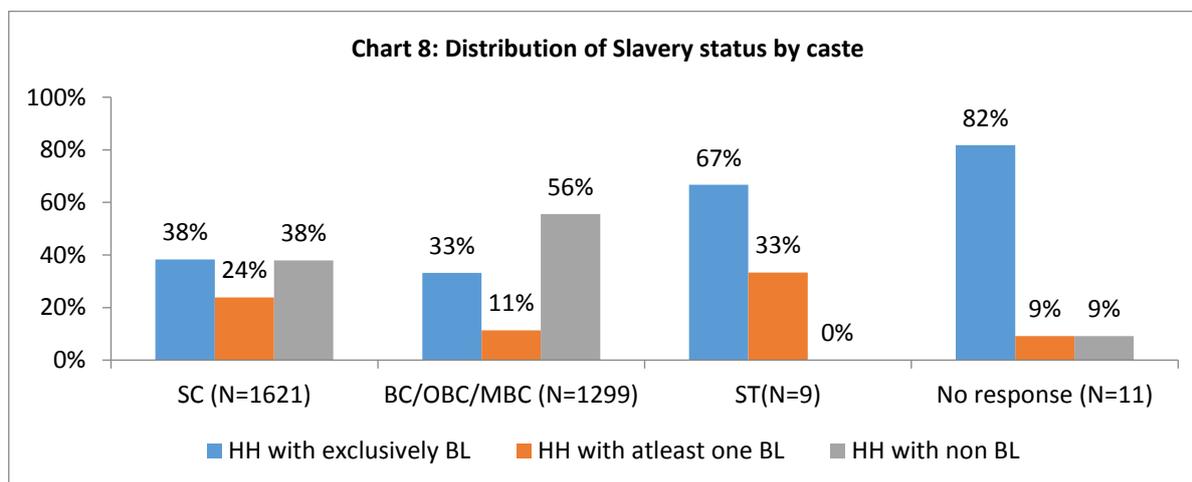
Chart 8: Distribution of Slavery status by caste

SC (N=1621): HH with exclusively BL 38%, HH with atleast one BL 24%, HH with non BL 38%
BC/OBC/MBC (N=1299): HH with exclusively BL 33%, HH with atleast one BL 11%, HH with non BL 56%
ST(N=9): HH with exclusively BL 67%, HH with atleast one BL 33%, HH with non BL 0%
No response (N=11): HH with exclusively BL 82%, HH with atleast one BL 9%, HH with non BL 9%

■ HH with exclusively BL ■ HH with atleast one BL ■ HH with non BL

The pattern of population distribution is in keeping with the assumptions that the study made – i.e., that the population in intervention areas of the NGOs comprises predominantly persons belonging to the Dalit (or scheduled caste) social category followed closely by other backward classes. Respondents from tribal areas are low in number, as expected, given that the intervention areas do not have a very dominant tribal population.

2.3.2 Economic status of households

In order to understand the economic status of households, five parameters were used: i) ownership of land on which they live; ii) ownership of any cultivable land; iii) access to livelihood through MGNREGA;[10] iv) bank account holder living in the household and v) membership of a self-help group. The underlying assumption is that a viable economic status would mean a lower number of working individuals per household would be in bonded labour.

Ownership of homesteads and cultivable land indicates that the family is economically better off, though drought conditions make this connection more tenuous. Access to livelihoods and linked payments from the MGNREGA scheme indicates that the family has at least one household member guaranteed a hundred days of minimum wage and therefore is closer to economic sufficiency and access to a bank account or self-help group membership indicates easier access to loans and finance.

The following charts show the linkage of bonded labour in each of these sets of categories:

Chart 9: Status of bonded labour by house lease ownership
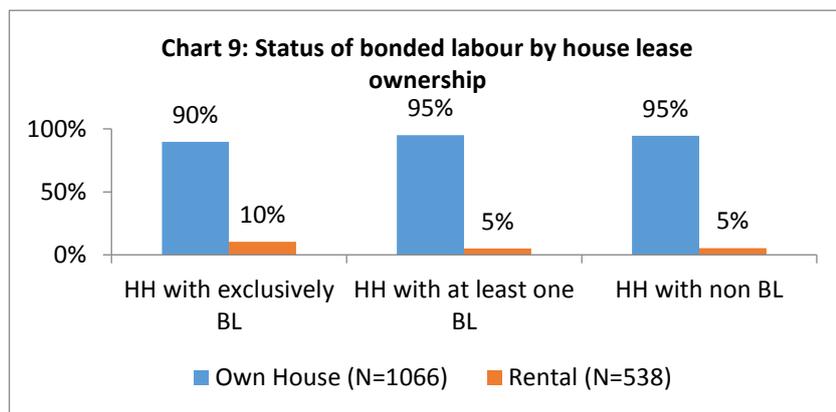
There was only one household for which there was no response to the question whether they owned or possessed a secure lease for the land on which they lived. Of the 2,939 households for which a response was recorded, 93% owned the land on which they lived and 7% did not. The prevalence of bonded labour based on lease ownership is in Chart 9. The ownership status of the lease on the land on which the house is built does seem to have a bearing on the nature of bonded labour: i.e., at least one slave or all family members in bonded labour. This seems to support assumptions of homestead land ownership and bonded labour. It is interesting to note that in the case of ownership of homestead land, in Namakkal, slightly more households (11.3%) did not own a secure lease for the land on which they lived and the corresponding figures for Dindugul (6.8%), Erode (5.2%) and Virudunagar (4.5%).

Chart 10: Distribution of HH based on land ownership
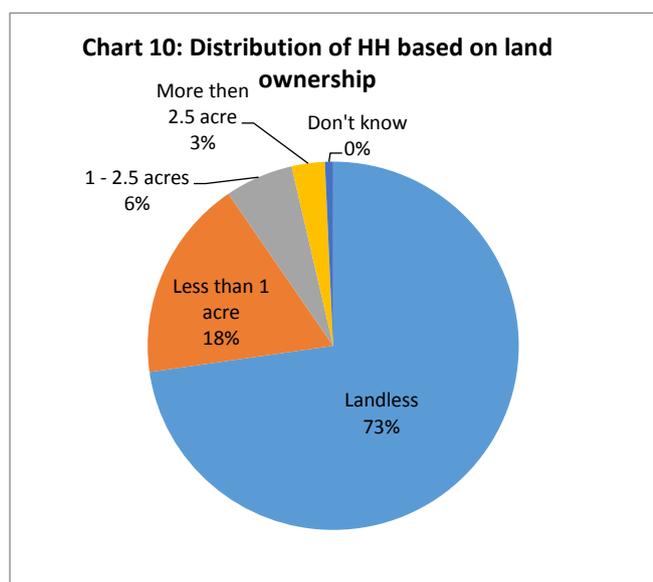
The respondents were asked to share land ownership[11] status of the households. The two charts below detail the distribution of households across the various categories as well as the status of bonded labour amongst them.
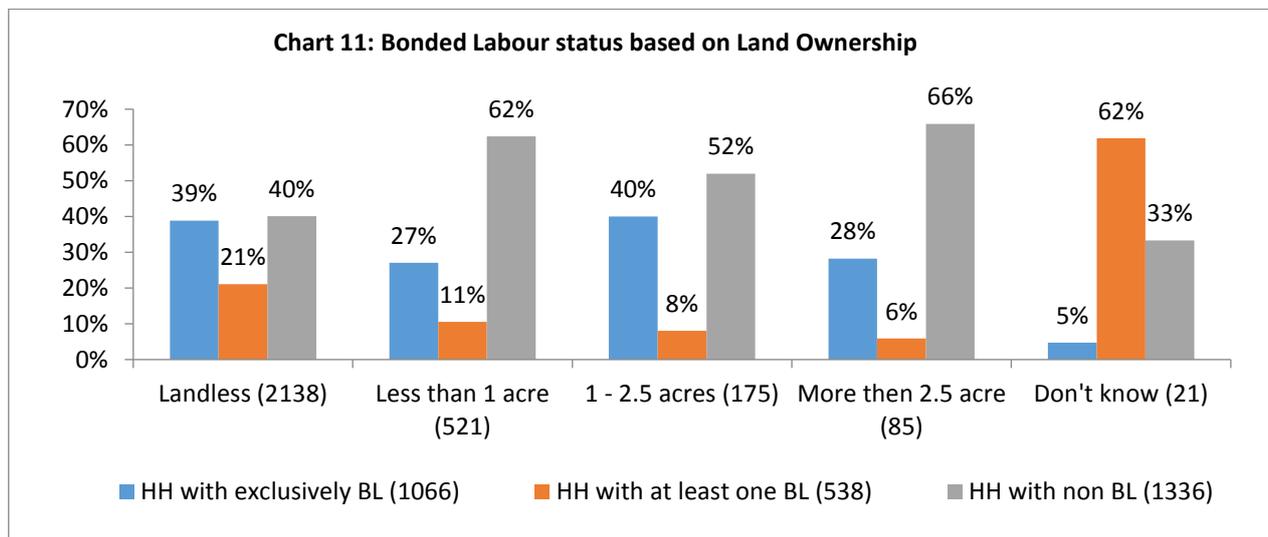
There is an association between status of land ownership and bonded labour. Most people are landless and among them 40% are not in slavery, 21% of landless households have at least one bonded labourer and as many as 39% of landless households have all family members in bonded labour. When households own land - even if it is a small piece of land - they are less likely to be in bonded labour. Only 85 households reported land ownership of above more than two and half acres, and of these, 56 households had no form of bonded labour and five had at least one person in some form of bonded labour.
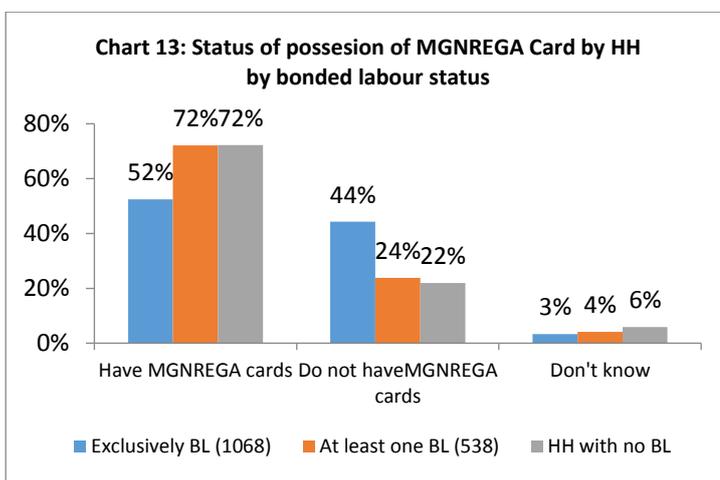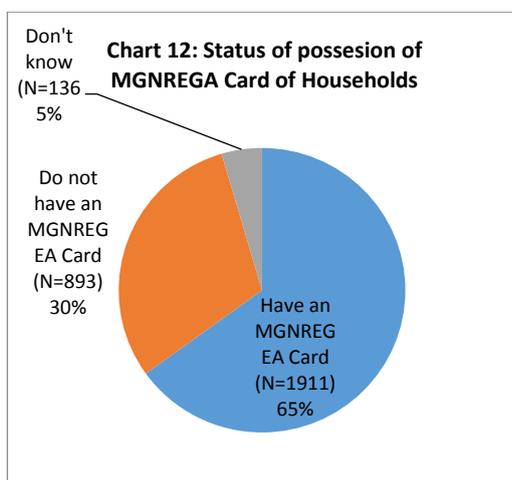
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[10] Mahatma Gandhi National Rural Employment Guarantee Act, an act passed by the Government of India in 2005, offering to guarantee hundred days of wage-employment in a year to a rural household. This can be accessed through a card issued by Government authorities

[11] Land ownership has been measured in acre and one acre is roughly equal to 4047 square meters

The status of bonded labour linked with possession and use of the MGNREGA by households was also explored. The MGNREGA aims at enhancing the livelihood security of people in rural areas by guaranteeing hundred days of wage-employment in a financial year to a rural household, whose adult members volunteer to do unskilled manual work. Households need to give their applications in writing to the Gram Panchayat with the date from which employment is required, the number of days of employment required, the names of the adult members of the household who are willing to do unskilled manual work, and some other details particulars such as age, sex and Scheduled Caste and Scheduled Tribe status. This scheme is an important policy instrument to reduce rural poverty.

Chart 11: Bonded Labour status based on Land Ownership

Land Ownership	HH with exclusively BL (1066)	HH with at least one BL (538)	HH with non BL (1336)
Landless (2138)	39%	21%	40%
Less than 1 acre (521)	27%	11%	62%
1 - 2.5 acres (175)	40%	8%	52%
More then 2.5 acre (85)	28%	6%	66%
Don't know (21)	5%	62%	33%

Charts 12 and 13 below detail the population distribution of possession of a card in the household as well as the incidence of bonded labour linked with payments for a certain number of days of work through the scheme.

Chart 12: Status of possesion of MGNREGA Card of Households

Don't know (N=136) 5%
Do not have an MGNREGA Card (N=893) 30%
Have an MGNREGA Card (N=1911) 65%

Chart 13: Status of possesion of MGNREGA Card by HH by bonded labour status

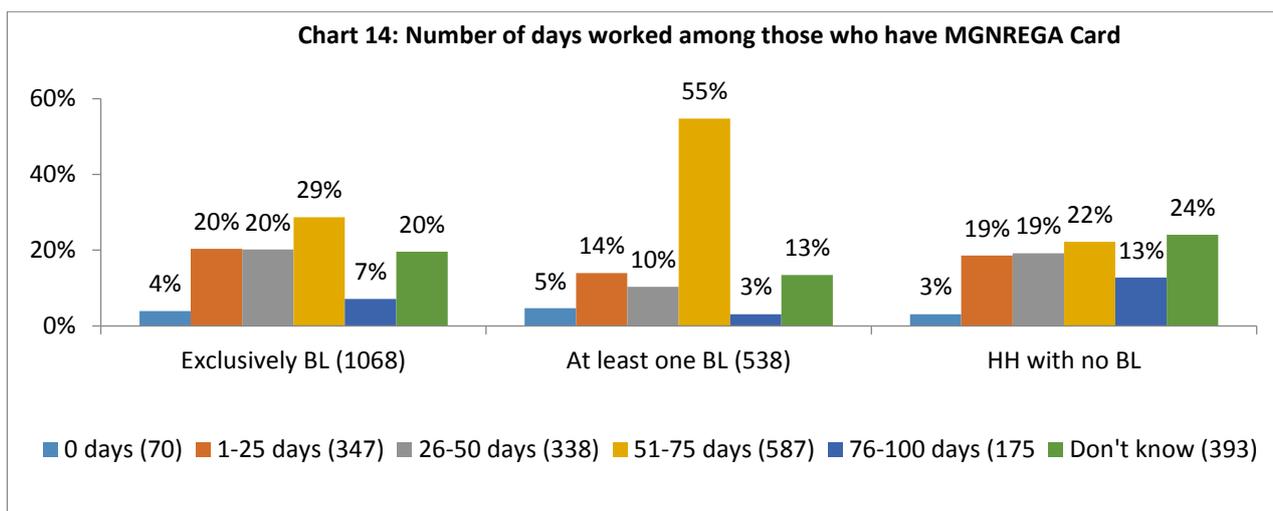|	Exclusively BL (1068)	At least one BL (538)	HH with no BL
Have MGNREGA cards	52%	72%	72%
Do not have MGNREGA cards	44%	24%	22%
Don't know	3%	4%	6%

While a household may have an MGNREGA card and receive 100 days of employment, the question focused on actual receipt of payment for a number of days worked. This was emphasised because the scheme has been wrought with corruption in many places and with criticism about the payments not reaching those who have worked. To stop corruption the government developed a new policy of paying directly into people's bank account,[12] which is one of the reasons why having a bank account is important for rural poor.
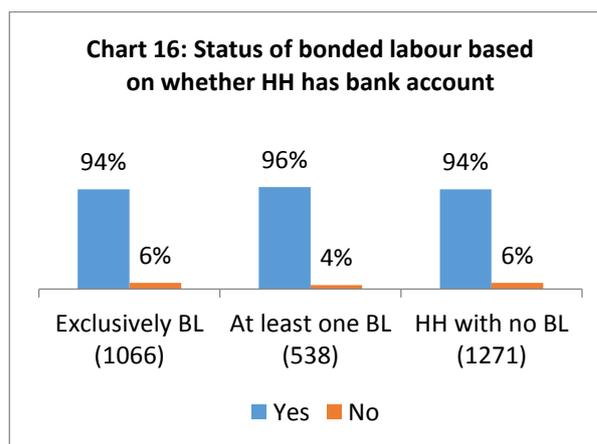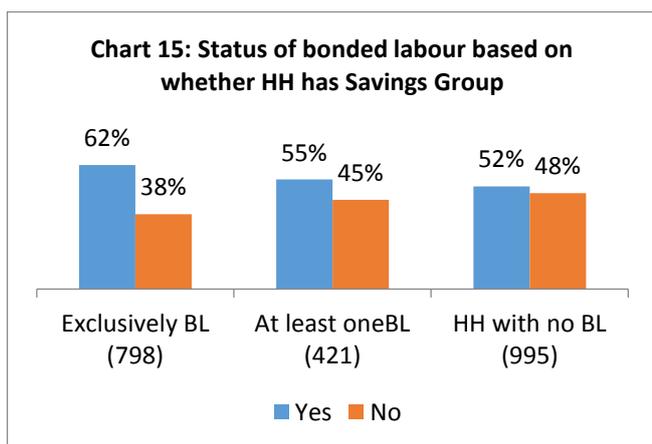
Chart 14 compares the bonded labour status within each group based on number of days that a household received payments for. This shows that while a high number of households with at least one bonded labourer

[12]http://timesofindia.indiatimes.com/city/delhi/Corruption-in-MGNREGA-stopped-by-direct-payments-Minister/articleshow/53598422.cms

received payment for more than 50 days, those households that received the highest proportion of payments for more than 75 days were from houses where there were no bonded labourers.

Chart 14: Number of days worked among those who have MGNREGA Card

Legend: ■ 0 days (70) ■ 1-25 days (347) ■ 26-50 days (338) ■ 51-75 days (587) ■ 76-100 days (175) ■ Don't know (393)

42% of the households reported that someone in the household was a member of a self-help group and 90% said that someone in the household had a bank account. Charts 15 and 16 below show the difference between those households that have exclusively bonded labourers and those that have at least one bonded labourer: it is linked with an individual in the household having access to a bank account and membership of a self-help group respectively.

Chart 15: Status of bonded labour based on whether HH has Savings Group

Legend: ■ Yes ■ No

Chart 16: Status of bonded labour based on whether HH has bank account

Legend: ■ Yes ■ No

Membership of an SHG group found to be positively correlated with bonded labourer within a household – households with bonded labourers are slightly more likely to be in a SHG.

This may be due to the targeting criteria for membership of SHGs set up as part of the programme through the Freedom Funds partners. NGOs are consciously targeting this to more vulnerable households, and setting up SHGs is one of the first interventions that they do in an intervention area. Household access to a bank account is not correlated with bonded labour within a household.

2.2.3 School-going children and bonded labour

There were questions in the tool on the school-going status of children in households and the table below details these links with bonded labour status of households:

School going children	Exclusively bonded labourers (N=1066)		At least with one bonded labourer (N=538)		No bonded labourers (N=1336)	
Age in years	Boys	Girls	Boys	Girls	Boys	Girls
5	34	29	12	6	37	15
6	33	36	17	17	37	21
7	40	29	19	8	48	33
8	44	38	20	10	36	26
9	30	27	16	5	39	24
10	51	30	20	9	43	40
11	30	37	14	10	22	26
12	48	33	13	22	44	47
13	42	45	27	16	60	42
14	56	47	24	26	67	52
No. of children	408	351	182	129	433	326
No. of HHs	340	287	164	113	388	276
% of HHs with school going children	32%	27%	30%	21%	29%	21%

Data on school-going children shows no major variation in case of boys hailing from families with one, all or no bonded labourers. However, the data for school going girls was different – relatively more households that had exclusively bonded labourers had dropouts as compared to other groups.

School dropout status of children under 14 years was also explored in the tool and chart 18 below shows the linkage between dropout rates and bonded labour status. The percentage of dropout by bonded labour status is in the expected direction, with a higher number of dropouts among the households with exclusively bonded labourers and lesser number among the households without bonded labourers. Overall, 84 HHs (2.8%) have at least one dropout.

Chart 17: School dropout by bonded labour status

Chart 18: Status of bonded labour based on whether HH has access to health centre
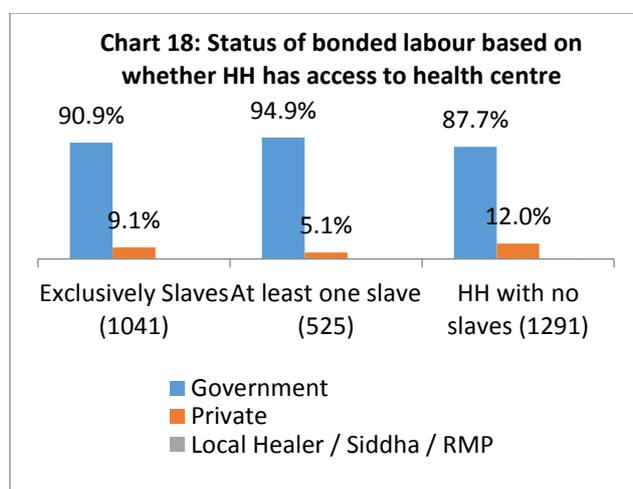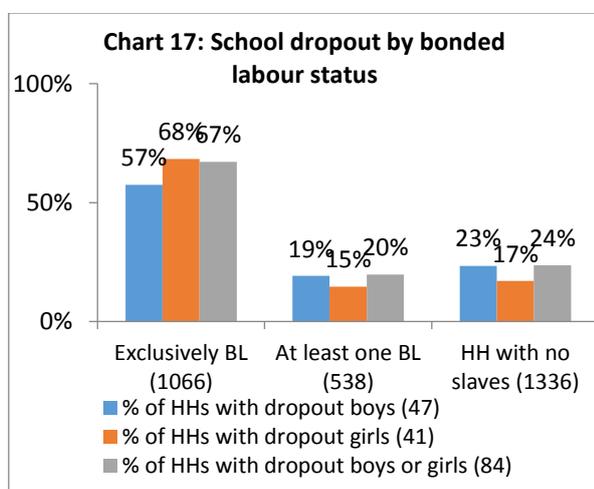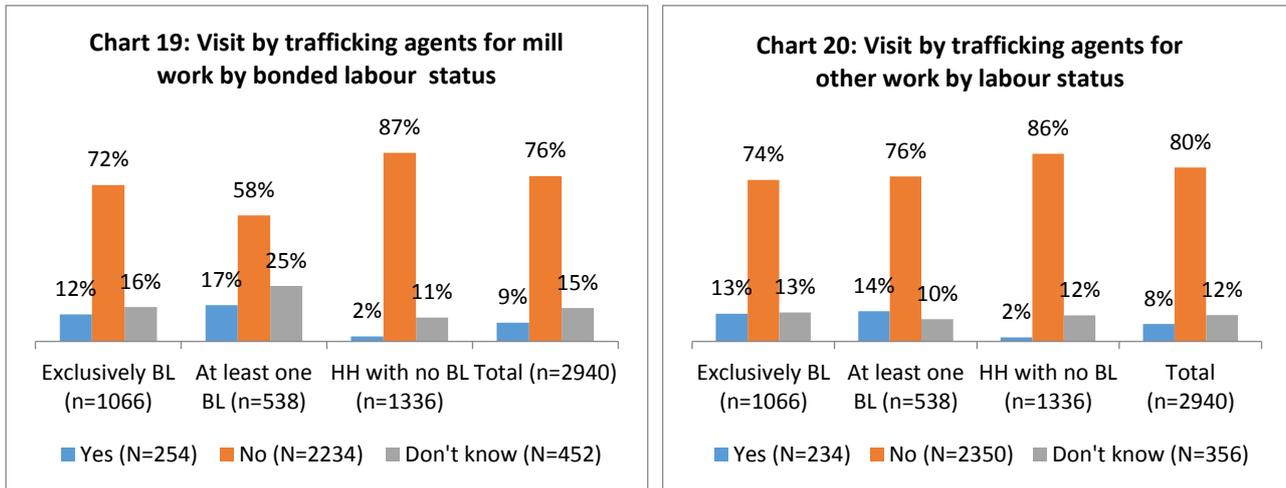
2.3.4 Access to healthcare for households

Tamil Nadu has made great progress on maternal, new born and child health.[13] In addition to public investments the private health sector has also expanded which has improved access to care. However, most health expenses are paid out of household pockets. In our sample the vast majority of respondents, (97%) had access to at least health service. Chart 18 above, shows that 91% among the HHs that have all family members in bonded labour and 95% of HHs that have at least one member in bonded labour report accessing government health services. Health emergencies are given as a reason for taking out loans (see below). Health problems are directly correlated with poverty due to the costs of treatment and reduced income due to a reduced ability to work.

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[13] http://ghlc.lshtm.ac.uk/files/2011/10/GHLC-book_Chapter-6.pdf

2.3.5 Trafficking

Agents play a minimal role in trafficking people for mill work and other work (by promising good income and decent working conditions). The data shows that, overall, only 9% of the respondents admitted the role of agents in trafficking individuals to mills and 8% admitted their role in trafficking people.

Charts 19 and 20 shows that relatively more households with at least one bonded labourer reported visits of trafficking agents as compared to the households with all members in bonded labour. The houses with no bonded labourers reported the highest number of visits by traffickers and/ or agents for both mill and other work.

Chart 19: Visit by trafficking agents for mill work by bonded labour status

Chart 20: Visit by trafficking agents for other work by labour status
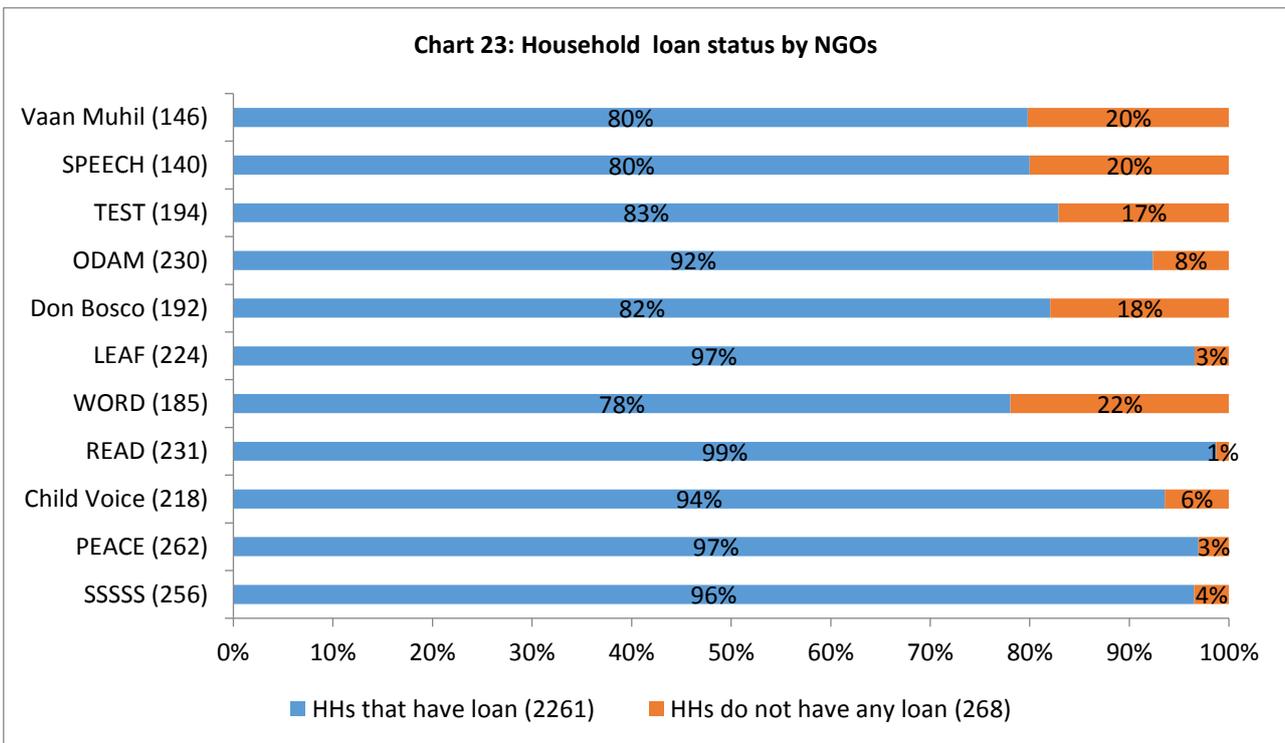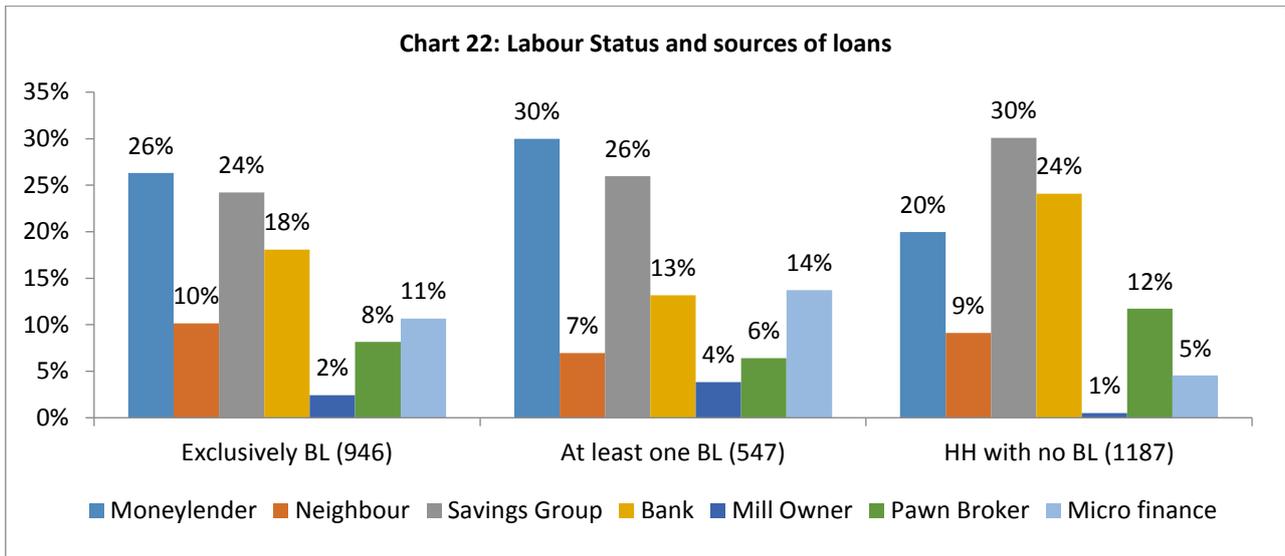
2.4 Loans and bonded labour

The link between loans and bonded labour emerged as significant during the story analysis workshop and the findings of the baseline study corroborate this.

The chart below details the status of bonded labour and loans. A relatively higher number of households with members involved in bonded labour reported taking a loan as compared to the other households. 70% of the HH without bonded labour have a loan.

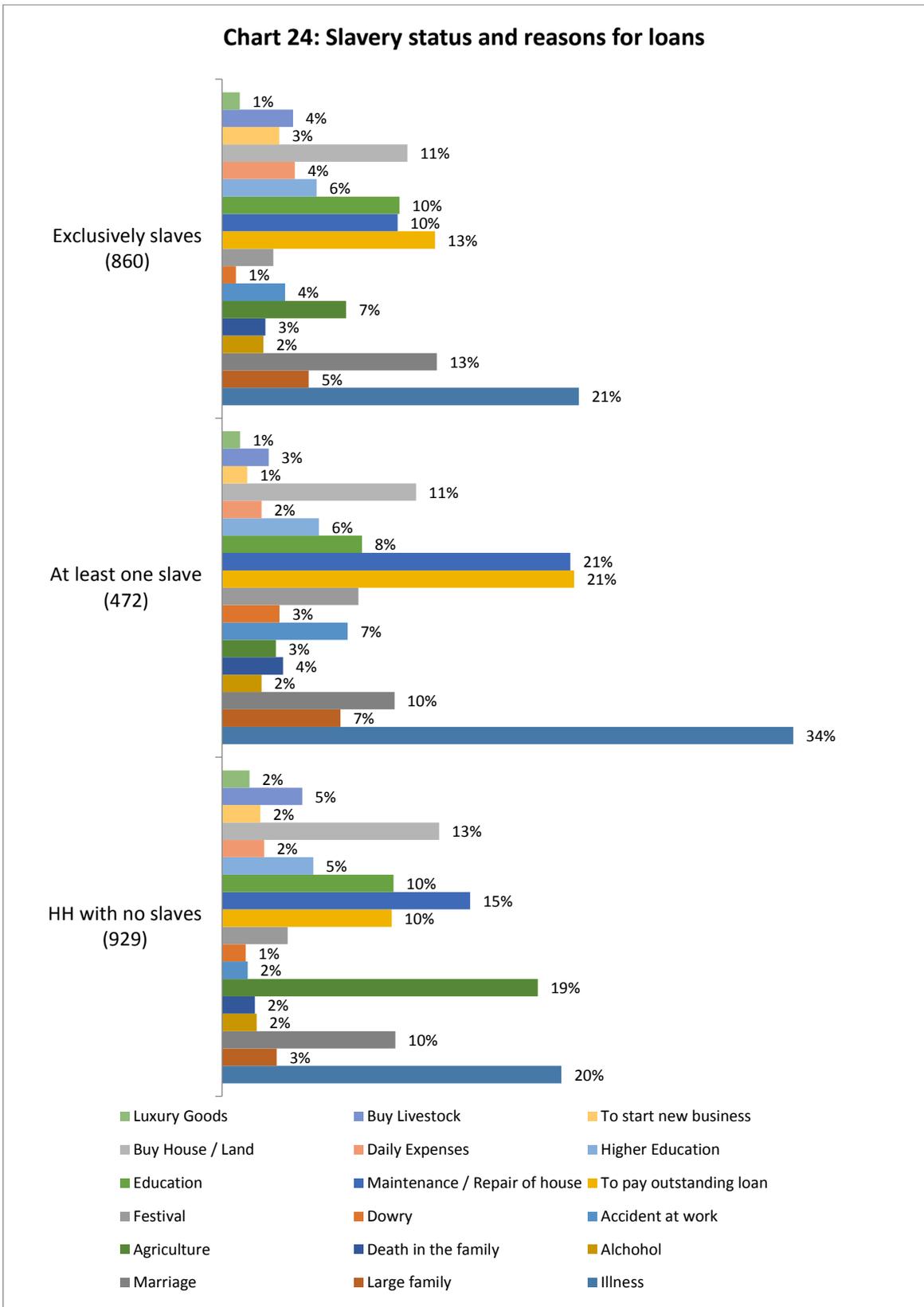**Chart 21: Bonded Labour Status and Household Loan**
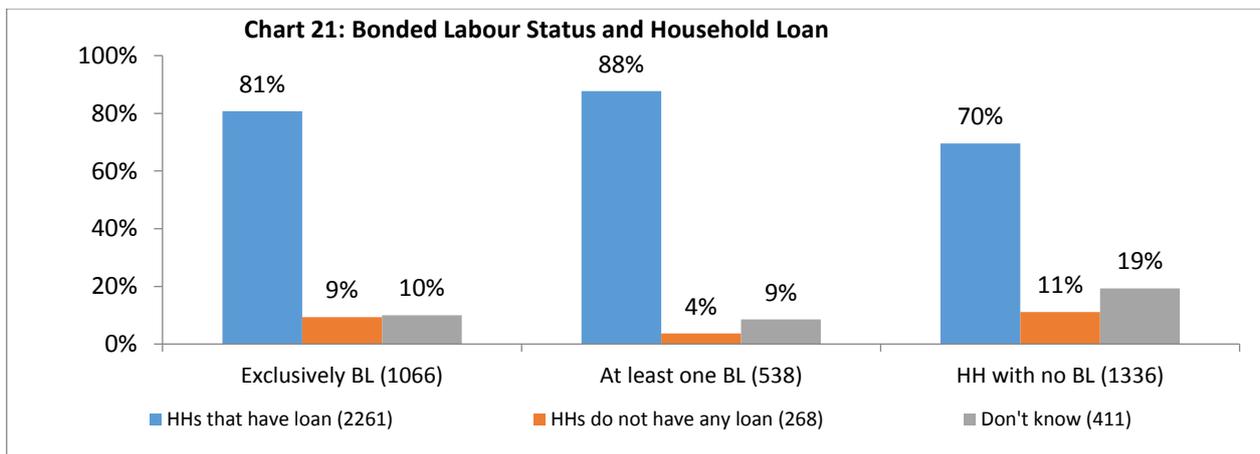
The sources of the loans tended to be wide ranging. The chart below details the status of bonded labour and its linkages with the sources of loans and is calculated only for those who have taken a loan.

Chart 22 shows that the pattern of borrowing seemed to be similar across those households that had bonded labourers. The average percentages of borrowing from various sources across these categories can be seen in the chart above. Households without members in bonded labour have better access to savings groups and banks – which are relatively safe compared to a money lender / pawn broker – but they also still use the moneylenders and they have less access to micro-credit, perhaps because of micro-credit group criteria. For households with members in bonded labour, the moneylender was the reported major source for borrowing money. Chart 20 below provides a distribution of loan status across the NGO partners.

Chart 22: Labour Status and sources of loans

Exclusively BL (946):
- Moneylender: 26%
- Neighbour: 10%
- Savings Group: 24%
- Bank: 18%
- Mill Owner: 2%
- Pawn Broker: 8%
- Micro finance: 11%

At least one BL (547):
- Moneylender: 30%
- Neighbour: 7%
- Savings Group: 26%
- Bank: 13%
- Mill Owner: 4%
- Pawn Broker: 6%
- Micro finance: 14%

HH with no BL (1187):
- Moneylender: 20%
- Neighbour: 9%
- Savings Group: 30%
- Bank: 24%
- Mill Owner: 1%
- Pawn Broker: 12%
- Micro finance: 5%

Legend: Moneylender, Neighbour, Savings Group, Bank, Mill Owner, Pawn Broker, Micro finance

Chart 23: Household loan status by NGOs

NGO	HHs that have loan	HHs do not have any loan
Vaan Muhil (146)	80%	20%
SPEECH (140)	80%	20%
TEST (194)	83%	17%
ODAM (230)	92%	8%
Don Bosco (192)	82%	18%
LEAF (224)	97%	3%
WORD (185)	78%	22%
READ (231)	99%	1%
Child Voice (218)	94%	6%
PEACE (262)	97%	3%
SSSSS (256)	96%	4%

Legend: HHs that have loan (2261), HHs do not have any loan (268)

As explained above, families not affected by bonded labour are less likely to have a loan, and the chart below is only for those households that do have a loan. Here too, the major reasons for loans reported by all categories was disease/illness followed by marriages.

Chart 24: Slavery status and reasons for loans

Exclusively slaves (860)
- 1%
- 4%
- 3%
- 11%
- 4%
- 6%
- 10%
- 10%
- 13%
- 1%
- 4%
- 7%
- 3%
- 2%
- 13%
- 5%
- 21%

At least one slave (472)
- 1%
- 3%
- 1%
- 11%
- 2%
- 6%
- 8%
- 21%
- 21%
- 3%
- 7%
- 3%
- 4%
- 2%
- 10%
- 7%
- 34%

HH with no slaves (929)
- 2%
- 5%
- 2%
- 13%
- 2%
- 5%
- 10%
- 15%
- 10%
- 1%
- 2%
- 19%
- 2%
- 2%
- 10%
- 3%
- 20%

Legend:
- Luxury Goods
- Buy Livestock
- To start new business
- Buy House / Land
- Daily Expenses
- Higher Education
- Education
- Maintenance / Repair of house
- To pay outstanding loan
- Festival
- Dowry
- Accident at work
- Agriculture
- Death in the family
- Alchohol
- Marriage
- Large family
- Illness

Households with no bonded labour borrow more often for agriculture than households with members in bonded labour. All households mention illness as the main reason for taking out loans. One interesting pattern here is that high numbers (across all groups) are incurring debts for marriage (e.g. 10-13% of loans) but they only give 1-3% as caused by dowry. It may be that people conflated the cost of dowry with those of marriage in general.

2.5 Early marriage and bonded labour

The linkages between the bonded labour status of families and the incidence of early marriage were explored. Early marriage is defined as below the legal age of marriage in India. The table below details the incidence of early marriage in households with different status of bonded labour.

	Child marriage among boys	Child marriage among girls	Any child marriage
Exclusively bonded (1036)	1.06%	0.77%	1.64%
At least with one bonded labourer (535)	1.12%	2.43%	3.55%
No bonded labourers (1324)	0.91%	0.45%	1.06%
Total (2895)	**1.07%**	**0.93%**	**1.73%**
45 HH reporting 'don't know' were not included in the analysis			

Prevalence of early marriage among boys and girls given in the table shows that there is a low proportion of incidence recorded among the sample households. The proportion of early marriage among boys is slightly higher than that among the girls. Note that the legal age of marriage for boys is 21 and for girls, 18. Early marriage by status of bonded labour shows that the households having at least one bonded labourer recorded relatively higher numbers of early marriages as compared to their counterparts.

2.6 Alcoholism and bonded labour

Chart 25: Alchoholism consumption (in a week) among head of the family
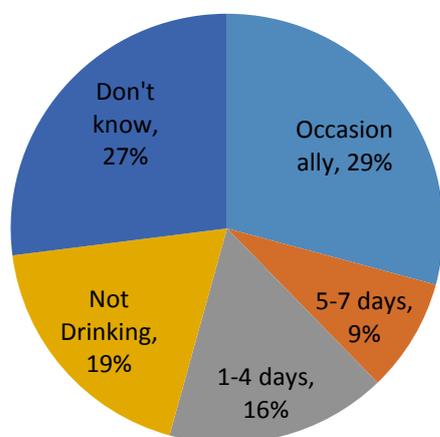
An attempt has been made to explore the prevalence of alcoholism among families with members in a situation of bonded labour, due to the reported importance of this topic given by respondents during the scoping visit and life story analysis. In the life story analysis participants saw alcoholism of the head of the family as one of the major factors forcing the family into poverty and pushing the family members to become bonded.

Alcoholism is notoriously difficult to diagnose as alcoholics often hide their drinking from their family members – who therefore cannot estimate the alcohol intake. Alcoholics may also underreport their alcohol intake. But because it came out so strongly we wanted to see if we could collect valid data. The validation exercise showed that the results had high variation and should thus be treated with caution.

54% of the sample families reported that the head of the household drank alcohol - with 9% of the families reporting the head of household drinking 5-7 days in a week, 16% reporting drinking 1-4 days in a week and 29% reporting drinking occasionally (less than one day a week). We did not find clear enough evidence on correlations between drinking and bonded labour.

3. Conclusions and recommendations

The aim of the process was to estimate a prevalence of bonded labour in the selected intervention communities of the Freedom Fund hotspot in Tamil Nadu. Prevalence data helps mainly to understand the profile of families in bonded labour and to understand any correlations with different variables. The analysis of life stories provided a better insight into the life situations of families in bonded labour and explored questions of why and how. Due to the clear causal factors emerging from the life story analysis, the current prevalence study was able to focus on these important indicators.

The team facilitated a discussion on the results at the end of the data collection in each site. These discussions focused on the reasons for the differences in prevalence results using the tallied up data allowing to explore how gender, age and caste dynamics shape bonded labour, with over 18 year olds mostly working outside and 18 year olds and below mostly inside or near the village of residence. The facilitators tallied up the prevalence data from the forms to facilitate a discussion on the prevalence results. Tallying up all the results was not possible as we worked with pictorials on sheets to allow illiterate people to participate in a transparent process. Facilitators asked the five questions below, observed the interactions and made sure that every participant was given a chance to speak. In places where the prevalence result was very low and nil we did not hold discussions.

1. What are the reasons for the existence of bonded labour?
2. What happens when one attempts to come out of bonded labour?
3. Has anyone came out of bonded labour from this village? If yes, who supported them?
4. Whom to be approached for coming out of bonded labour?
5. What are the ways to reduce/address bonded labour from your perspective?

The quantitative data has been shared by Praxis with the NGOs in Tamil. We have entered the data in excel format and analysed it. A summary of the results is attached in Annex 5.

It might be worthwhile to try to pilot data entry with iPads – tallying up can be easier and thus allows for a more extended immediate comprehensive group analysis on the spot. However, data entry on iPads can have more errors in data entry and is particularly hard for illiterate people to fix or comment on.

The estimates from the current prevalence study show the correlations of bonded labour with various factors. Where possible, conclusions have been drawn about whether this quantitative analysis corroborates certain widely held assumptions about patterns and correlations with regard to forms of bonded labour in India. What can be conclusively stated about a range of factors) is detailed below:

*   Within the intervention communities of these partners, 45% of the households had no bonded labourers, 36% had all family members in bonded labour and 18% households had at least one family member in bonded labour

*   Geographically, within our sample, Dindigul and Erode had over 80% households affected by bonded labour, whereas Namakkal and Virudhunagar had over 60% non-bonded labourer households. So clearly the interventions are in the right spot

*   Among the total population, 9.94% are bonded labourers aged below 18 and most of these (6.57%) are girls. Most of the girls involved in bonded labour are working in the mills inside the village. Adults in bonded labour work more often outside the village

*   Caste, gender, age, access to MGNREGA benefits, and loan-taking are the key factors at the individual and household level that contribute to bonded labour in this hotspot. Within the hotspot as a whole there are few economic opportunities available outside the mills and alcohol is easily available and consumed widely

*   With regard to social status, SC HH had 38% with no family members in bonded labour and OBC had 56% HH with no bonded labourers. The pattern of population distribution is in keeping with the assumptions that the study made: i.e., that the population in intervention areas of the NGOs is

predominantly made up of persons belonging to the Dalit (or scheduled caste) social category, followed closely by other backward classes

- Households without members in bonded labour have better access to savings groups and banks but they also use moneylenders. Health expenses are the main reason for taking out a loan among all households. Land ownership and bonded labour status shows that as the size of the land holding increases the prevalence of bonded labour in those households' decreases.

- With regard to MGNREGA: As payments for number of days worked received increases, the incidence of bonded labour decreases slightly.

- Access to a bank account does not itself have any significant impact on the status of bonded labour.

- Alcohol usage overall does not seem to show a strong link with bonded labour status of the families. Heavy drinking seems to be a social norm.

In terms of the programme

- An integrated approach which focuses on the prevention of health problems (primary health care) and prevention of risky loan-taking - by facilitating access to safe loans, reducing the reliance on money lenders and improving equitable access the MGNREGA benefits - is likely to increase resilience of households and reduce bonded labour.

- Reducing alcohol consumption may improve disposable income and the wellbeing of households but is unlikely to specifically reduce bonded labour.

- The uptake and dissemination of research results needs to make sure that the results of the mid-term review and the prevalance study are shared with the field staff who worked on the data collection and can continue the discussions at the field level –including with the participants of the survey. IDS/Praxis have shared the results with NGO management teams. Geneva Global and Freedom Fund should now explore how the discussion of the results at the hamlet level can be used for operational program activities including activities that can be led by the communities themselves and via IDS/Praxis supported action research.