



---

# HUMAN COST OF SUGAR

A farm-to-mill assessment of sugar supply chain in Uttar Pradesh

---

**Production of sugar in India is associated with an array of social and environmental challenges. The social and economic significance of sugarcane and its footprint on lives of the vulnerable and most marginalised encouraged Oxfam India to conduct a study. This study is an attempt to assess the challenges faced by small and marginal farmers and farm workers in the sugar value chain.**



ऑक्सफैम इंडिया  
**OXFAM**  
India

# CONTENTS

<b>Contents</b> .....	<b>ii</b>
<b>Abbreviations</b> .....	<b>iv</b>
<b>SUMMARY</b> .....	<b>v</b>
<i>Key Findings of the Study</i> .....	<i>v</i>
<b>Chapter 1: About the Study</b> .....	<b>1</b>
1.1. <i>Background</i> .....	1
1.2. <i>Research Methodology</i> .....	1
<b>Chapter 2: Sugar Value Chain in India</b> .....	<b>3</b>
2.1. <i>Sugar Production in India</i> .....	3
2.2. <i>Uttar Pradesh</i> .....	3
2.3. <i>Sugar Value Chain: Farm to Mill</i> .....	4
2.4. <i>Sugarcane Pricing Policy</i> .....	4
<b>Chapter 3: Key Findings of the Study</b> .....	<b>6</b>
3.1. <i>Key Stakeholders in the Sugar Value Chain in Uttar Pradesh</i> .....	6
3.2. <i>Profile of Farmers</i> .....	7
3.3. <i>Status of Women Farmers</i> .....	8
3.3.1. <i>Participation of women in the cultivation process</i> .....	8
3.3.2. <i>Land Ownership among Women</i> .....	9
3.4. <i>Challenges Faced by Sugarcane Farmers</i> .....	10
3.4.1. <i>Income of marginal and small farmers</i> .....	10
3.4.2. <i>Supply chain issues and challenges</i> .....	11
3.4.3. <i>Farmer grievance redressal and engagement</i> .....	16
3.5. <i>Vulnerabilities of Farm Workers</i> .....	16
3.5.1. <i>Types of farm workers</i> .....	16
3.5.2. <i>Working condition and challenges faced by farm workers</i> .....	17
3.5.3. <i>Exploitation of child migrant workers</i> .....	18
3.6. <i>Risks and challenges associated with land ownership</i> .....	20
3.7. <i>Risks and Challenges Associated with Water</i> .....	21
3.7.1. <i>Water conservation as a futuristic vision</i> .....	21
3.7.2. <i>Pollution control measures</i> .....	22
3.8. <i>Transparency of the Sugar Supply Chain</i> .....	23
3.8.1. <i>Transparency trends in food and beverage sector</i> .....	23
3.8.2. <i>What could lack of traceability lead to?</i> .....	24
<b>Chapter 4: Conclusion</b> .....	<b>25</b>

<b>Annexure 1: Relevant Laws and Conventions .....</b>	<b>26</b>
<b>Annexure 2: Stakeholders covered by the study.....</b>	<b>27</b>
<b>Bibliography .....</b>	<b>28</b>
<b>End Notes .....</b>	<b>29</b>

# ABBREVIATIONS

AIKS	:	All India Kisan Sangh
BKS	:	Bhartiya Kisan Sangh
BKU	:	Bhartiya Kisan Union
CPCB	:	Central Pollution Control Board
CACP	:	Commission for Agricultural Costs and Prices
CSO	:	Civil Society Organization
EIA	:	Environment Impact Assessment
ETP	:	Effluent Treatment Plant
FGD	:	Focus Group Discussion
F&B	:	Food and Beverages
ha	:	Hectare
ILO	:	International Labour Organisation
ISMA	:	Indian Sugar Mills Association
MoEFCC	:	Ministry of Environment, Forests and Climate Change
MNES	:	Ministry of Non-Conventional Energy Sources
MT	:	Metric Tonnes
NFCSF	:	National Federation of Cooperative Sugar Factories Limited
NTUI	:	National Trade Union Initiative
OBC	:	Other Backward Class
SC	:	Scheduled Castes
SPCB	:	State Pollution Control Board
ST	:	Scheduled Tribes
UP	:	Uttar Pradesh
FRP	:	Fair and Remunerative Price
SAP	:	State Advised Price
MIEQ	:	Minimum Indicative Export Quota
₹	:	Indian Rupee

# SUMMARY

In 2013, Oxfam initiated a ground-breaking campaign called Behind the Brands to engage ten of the largest companies in agri-food in a race to the top with respect to economic, social and environmental performance. Since the campaign initiated, the brands have taken steps to better assess their performance, and made important commitments to improve social and environmental standards in their supply chains. Sugar is one of the most important commodities sourced by food and beverage companies.

India is one of the largest producers and consumers of sugar supporting an enormous number of jobs. At the same time, production of sugar in India is associated with an array of social and environmental challenges. Sustainability in sugar value chain is a complex issue and it needs various stakeholders to come together. This report is based on a study conducted to understand the challenges in sugar value chain in Uttar Pradesh specifically between 'Farm to Mill' segment. The study was conducted in five districts of UP focusing on both male and female small and marginal farmers as well as farm workers.

Key actors directly involved in the value chain include farmers, farm workers, sugar mills, traders, cane societies, Cane Development & Sugar Industry Department, companies buying sugar, certification bodies, civil society organisations and trade unions.

Sowing of cane in U.P. usually begins in January and continues up till March. Pricing of the last season for Sugar and other crops being grown in same area, pending dues of Sugar mills in the catchment area, are some important factors that play an influential role in deciding the Sugarcane acreages. Once, the sowing window is over the cane development societies and the sugar mills on the directives of the Cane Development Department conduct crop surveys to estimate the net sown area under the crop. These surveys are conducted by visiting the field of every cane grower farmers and information from these surveys is useful not only to formulate the prices of the cane for the coming season but to earmark the procurement area for the sugar mills in the state. They also provide time to time extension service support to their farmers. As soon as the procurement area for each of the sugar mill is earmarked, cane development societies develop a tentative sugarcane supply plan for registered farmer members. Before the crushing season, registered members are being provided with Slip that has Sugarcane supply plan. These farmers can then plan their harvest anticipating the week in which they would receive an order from the cane societies to drop their harvested cane at the sugar mill or the procurement centres established by the sugar mill in their or neighbouring village.

## KEY FINDINGS OF THE STUDY

- Sugarcane cultivation is the primary source of income for 67% of the marginal and 95% for the small farmers. Remaining 33% of marginal farmers are more dependent on agriculture and non-agriculture labour owing to their small landholding size.
- Women farmers with or without land ownership have limited decision making powers. They contribute to the farming process through their labour during the sowing and harvesting seasons. Only when male members are absent in the family do women take up a more proactive role.
- Working in sugarcane farms is considered taboo for women in the community. Families with landholdings of over 2 ha do not allow the women to participate in sugarcane farming. For small

and marginal farmers, who are largely dependent on the labour of their family members, women participate in sugarcane cultivation.

- As high as 60% of the farmers, interviewed during the study, said that their basic quota of sugarcane supply is usually less than their actual produce by anywhere between 150-220 quintals. This they said is because of faulty surveys resulting in decreased incomes by ₹ 48,000 to ₹ 72,000.
- 70% - 90% of the farmers, interviewed during the study said that they are often forced to sell the cane to local jaggery producing units at lower price due to delays in receipt of supply tickets.
- 90% of the farmers, interviewed during the study, said that they have faced unfair weighing of cane at the mill gates or collection centres. 70% of the farmers interviewed said that they receive payments from mills after a year of supplying cane.
- Only 15% of the farmers interviewed said that they were aware of Trade Unions. They also said that the existing grievance redressal mechanisms are ineffective.
- It was found that farmers generally do not practice any documentation for the farm workers they employ. Wages vary between ₹ 200 to ₹ 400 for men and ₹ 80 to ₹ 200 for women as against the state government specified minimum wages of ₹ 293, ₹ 322 and ₹ 361 for unskilled, semi-skilled and skilled workers respectively.
- 81% of the daily wage farm workers interviewed are not paid on the same day, and face a delay of anywhere between 10 – 15 days after completion of their work.
- Some contract workers were reported to be in a situation similar to bondage where they have borrowed money from the big farmers and pay off by working for them as labourers for several years.
- Migrant children aged between 12 -16 years from states like Bihar, Madhya Pradesh, Chhattisgarh, Odisha and West Bengal were reported to be hired through contractors as workers.
- Conditions of forced labour, abuse, non-payment of wages at the end of the season (6-8 months) and false promises by contractors were reported to be prevalent.
- Abundant availability of water in the region has led to over-exploitation of ground water. Water conservation practices are not practiced by farmers.
- Sugar mills and distilleries in several parts of Uttar Pradesh are also found to be polluting water bodies by discharging untreated effluents into water bodies.

# CHAPTER 1: ABOUT THE STUDY

## 1.1. BACKGROUND

India is facing two contrasting realities, one of extraordinary wealth accumulation led by private sector growth<sup>i</sup> and other of deep-set, far-reaching poverty. Poor and marginalised groups are most vulnerable to the negative impact of business activities. Private sector activities, especially in the supply chain and communities, are non-transparent and exploitative<sup>ii</sup>. Oxfam India engages with private sector to influence adoption of responsible and inclusive business policies and practices to end inequality. A deeper analysis of specific supply chains is pertinent to understand the complexities of sustainability issues and potential solutions.

In 2013, Oxfam launched the 'Behind the Brands' campaign aiming to challenge the 'Big 10' food and beverage companies on their social and environmental policies and practices. Each company has hundreds of thousands (in most cases millions) of producers and workers at the base of their supply chains. The focus issues included climate, land, water, women, workers, smallholder farmers and transparency. The campaign also aimed at bringing forth the voices of all key stakeholders, such as, farmers, communities, consumers and investors calling on them to take action towards a sustainable supply chain<sup>iii</sup>. The Big 10 companies have made significant new commitments to improve social and environmental standards in their vast supply chains since the launch of this campaign. Sugar is one of the most important commodities sourced by food and beverage companies in India.

The sugar sector provides a significant boost to the rural economy. It utilizes rural resources to produce sugar for domestic and international markets. It provides a source of income to farmers, farm workers, mill workers and all those who are involved across the value chain. India is the second largest sugar producing country after Brazil and has remained a key growth driver for world sugar, growing above the Asian and world consumption growth average. At the same time, production of sugar in India is associated with an array of social and environmental challenges. Sustainability in sugar value chain is a complex issue and it needs various stakeholders to come together. The social and economic significance of sugarcane and its footprint on lives of the vulnerable and most marginalised encouraged Oxfam India to conduct a study.

This study is an attempt to assess the challenges faced by small and marginal farmers and farm workers in the sugar value chain. This study is aligned with the key parameters of the Behind the Brands scorecard and covers small-scale farmers, women farmers, farm workers, climate change, land, water and transparency of global supply chains<sup>iv</sup>. This study is a beginning to create awareness on sustainability issues in sugar supply chains, engage stakeholders in dialogue and co-create solutions to address the issues.

## 1.2. RESEARCH METHODOLOGY

The study was designed to engage with all key stakeholders in the sugar value chain to get a holistic perspective on sustainability issues in the sugar value chain of Uttar Pradesh. A detailed review of literature was undertaken based on which key issues in the procurement phase of sugar value chain were identified. The study was conducted in 58 villages across 5 districts of Uttar Pradesh – Meerut, Saharanpur, Bareilly, Lakhimpur Kheri and Muzaffarnagar. These districts were selected based on

their high sugarcane producing record as published by the Sugar Industry and Cane Development Department annually<sup>v</sup>. Further narrowing down the geographical coverage of the study at the District level, catchment areas of various private, public and cooperative sugar mills were chosen to understand the variations brought about in the value chain influenced by different sugar mills.

A study design facilitating a multi-stakeholder engagement was specifically important to understand the perspective of all key actors of the supply chain. The study covered the following stakeholders:

1. Small and marginal farmers – both male and female
2. Farm workers – male and female
3. Management representatives of private, public and cooperative sugar mills
4. Officials of the Cane Societies
5. Additional Cane Commissioner, Cane Development and Sugar Industry Department
6. Civil Society Organisations
7. Trade Unions
8. Certification bodies

The study design adopted a mixed method approach using both quantitative and qualitative methods of data collection. In-depth interviews were conducted with male and female farmers as well as farm workers. The farmers were selected randomly based on the size of their landholding, wherein the focus was on marginal and small farmers who are the most vulnerable in the Indian agrarian context. Snowball sampling method was used to identify female farmers with land-ownership rights as this is a group difficult to identify owing to their smaller numbers. The farm workers were also randomly selected based on gender, age and type of recruitment as these are the most crucial indicators of vulnerability for this target group. With other stakeholders, semi-structured interviews were undertaken for the purpose of the study.

The district-wise number of small and marginal farmers and farm workers met with during the study is provided in Table 1 below.

**Table 1: Farmers & Farm Workers met with during the study**

Districts	Male Farmers	Female Farmers	Male Farm Workers	Female Farm Workers	Children working in farms
Bareilly	10	6	4	6	0
Saharanpur	10	10	5	5	0
Muzaffarnagar	10	10	5	5	2
Lakhimpur Kheri	10	10	4	6	0
Meerut	10	10	4	6	1
Total	50	46	22	28	3

\* Age of children working in farms could not be verified

All study findings have been corroborated and triangulated against existing literature on the issues identified and the perspectives gained from different stakeholders to provide a holistic understanding in the national context.



# CHAPTER 2: SUGAR VALUE CHAIN IN INDIA

## 2.1. SUGAR PRODUCTION IN INDIA

Sugar is an agro-based seasonal commodity dependent primarily on sugarcane in India. The sugar industry operates for a period of 6 to 8 months starting from October and extending up to March or April depending on the acreage remaining under cane, the cane crushing capacity of mills and the pace at which mills can procure cane. In 2017-2018, however, several mills were operational until the month of May due to a bumper production of sugarcane and the mills had to comply with rule of buying all the sugarcane produced in their allocated zone during a particular season.<sup>vi</sup>

Uttar Pradesh is a major sugar producing state of the country. There are total of 735 sugar mills in India as on March 2018 - Private mills: 365, Cooperative mills: 327, and Public mills: 43<sup>vii</sup>.

Sugar production in India was 32 million tonnes in 2017 - 2018<sup>viii</sup>, whereas the annual domestic demand is around 25 million tonnes in India<sup>ix</sup>. A 10% increase in average cane yield along with an improved national sugar recovery rate from 11% to 11.32% has contributed to record sugar production in India in the last crushing season of 2017 – 2018.<sup>x</sup> This has led to a fall in sugar prices in the domestic market. Against the cost of production of ₹ 36 per kg incurred by the mills, sugar was traded at ₹ 25.50 a kg (ex-factory) and ₹ 29 per kg in the wholesale market. Sugar prices have declined by 10.2 per cent in April 2018 alone and 24.56 per cent since the current crushing season started in October 2017.<sup>xi</sup>

## 2.2. UTTAR PRADESH

Uttar Pradesh is the highest sugarcane producing state in India followed by Maharashtra. The area under sugarcane cultivation has gone up by 12% in 2017-2018, from 2.3 million hectares to 2.54 million hectares. Sugar is majorly produced by 37 lakh farmers (in the in 44 out of 75 district of U.P), 2.96 crore farm workers, including their family members, 119 no. of mills etc. A total of 5.66 crore people in Uttar Pradesh are dependent on sugarcane operations and sugar industrial activities for their economic needs<sup>xii</sup>. District-wise sugarcane yield for 5 districts of U.P. is presented in Table 2 below:

**Table 2: Production of Sugarcane in Uttar Pradesh**

S.No.	District	Total Yield of Sugarcane (metric tonne) <sup>xiii</sup>	No. of Operational Sugar Mills <sup>xiv</sup>
1	Bareilly	73.61	6
2	Meerut	115.48	7
3	Saharanpur	73.25	8
4	Muzaffarnagar	131.17	9
5	Lakhimpur Kheri	238.74	9

Source: Sugar Industry and Cane Development Department

## 2.3. SUGAR VALUE CHAIN: FARM TO MILL

The Figure below represents the key stages of the sugar value chain as mandated by the Uttar Pradesh Sugarcane (Regulation of Supply and Purchase) Act, 1953.<sup>xv</sup>:

**Figure 1: Sugar Supply Chain**



## 2.4. SUGARCANE PRICING POLICY

In India, the pricing of sugarcane is governed by the statutory provisions of the Sugarcane (Control) Order, 1966 issued under the Essential Commodities Act (ECA), 1955. Statutory Minimum Price (SMP) was replaced with the Fair and Remunerative Price (FRP) under an amendment of the Sugarcane (Control) Order, 1966 in 2009. Some major sugar producing states such as U.P., Punjab and Haryana however, announce their own state Advised Price (SAP's) which is higher than the FRP. FRP is announced at the recommendations of the Commission for Agricultural Costs and Prices (CACP). Factors considered for fixation of FRP of sugarcane are the following:<sup>xvi</sup>

1. Cost of production of sugarcane
2. Inter-crop price parity
3. Reasonable margins for the growers of sugarcane on account of risks and profits
4. Recovery of sugar from sugarcane
5. Price at which sugar is sold by sugar producers
6. The realization made from sale of by-products or their imputed value
7. Availability of sugar to consumers at a fair price

Based on the recommendations made by CACP the Central Government increased the FRP of sugarcane from ₹ 129.84 in 2009-2010 to ₹ 255 in 2017-2018 per quintal and further increased to ₹ 275 for 2018-2019. Sugarcane farmers' associations have been able to negotiate a State Advised Price (SAP) higher than the FRP. The fixed price protects the farmers from vagaries of demand and supply of sugar in the domestic and international market.<sup>xvii</sup>

In 2012, the C. Rangarajan Committee made the following recommendations made on sugarcane pricing mechanisms:<sup>xviii</sup>

1. Linkage of sugarcane price with realisation of sugar and its first level of by-products
2. A minimum price fixed for sugarcane (FRP)
3. The actual payment for cane dues would happen in two steps. The first would be payment of FRP at floor price as per extant mechanism. Balance payment of cane dues will be done subsequent to publication of half-yearly ex-mill prices and values of the by-products under the revenue sharing model.

# CHAPTER 3: KEY FINDINGS OF THE STUDY

This section highlights the key findings of the study based on primary data collection.

## 3.1. KEY STAKEHOLDERS IN THE SUGAR VALUE CHAIN IN UTTAR PRADESH

Some of the key stakeholders involved at various stages of the value chain in Uttar Pradesh are listed in Table 3 below:

**Table 3: Key stakeholders and their roles in the sugar supply chain in Uttar Pradesh**

Key stakeholder	Role in the sugar supply chain
<i>Farmers</i>	Farmers can be categorised into four distinct categories of small farmers, marginal Farmers, big farmers and women farmers. Their key role in the supply chain is to produce and supply good quality of cane.
<i>Farm workers</i>	Farm workers employed by small and big farmers for all stages of sugarcane cultivation – ploughing of land, sowing of sugarcane, harvesting and supply of cane to the mills. Men and women from neighbouring villages as well as from other states work as farm workers in the 5 districts of Uttar Pradesh. Children are also found to working in the farms.
<i>Cane Development and Sugar Industry Department</i>	This department of the state government manages the entire process of earmarking Net Sown Area of sugarcane, allocation of reserve areas to individual sugar mills based on their crushing capacity, ensure timely issuance of supply tickets to farmers and timely payment for cane by the sugar mills. It plays a vital role in resolving challenges faced by all stakeholders involved in the sugar value chain and engages in price fixing for cane – determining the SAP. The Cane Commissioner is the highest authority at the state level implementing the Uttar Pradesh Sugarcane (Regulation of supply and purchase) Act 1953.
<i>Cane Societies</i>	Cane societies are the implementing wing of the Cane Development and Sugar Industry Department at the district level. There are more than one cane society in each district of Uttar Pradesh depending on the number of sugar mills and the Net Sown Area of sugarcane. The Cane Societies interact directly with the farmers and sugar mills. Cane societies along with the mills are the ones responsible for generating the fortnightly calendar i.e. plan for harvesting of cane by a farmers at a fortnightly interval spread over 180 days of operation of the mill and also a supply tickets which is nothing but an advise to the farmers to drop his harvested cane at the sugar mill or at the procurement centres established by the mills in the cluster of villages.
<i>Sugar Mills</i>	Sugar mills procure cane from farmers and produce sugar along with other by-products such as molasses, bagasse, and press mud etc. They procure cane from farmers in their catchment area by raising indent for their requirement through cane societies. Apart from crushing of cane the sugar mills time to time also undertake several programs for training and capacity building of farmers in their area and for varietal improvement of cane grown in their area.
<i>Traders</i>	Traders act as intermediaries between sugar mills and sugar buyers. Several

	institutional buyers, food and beverage companies buy sugar from traders instead of buying directly from mills. Some of the biggest international commodity traders operate in the sugar supply chain in India. In addition there are a few Indian traders who are also active.
<i>Food and Beverage companies</i>	Food and beverage manufacturing companies in India are significant bulk buyers of sugar in the formal domestic market. These companies engage with the sugar mills as their suppliers. Many of these companies have supplier code of conduct which their supplier mills must adhere to. There is almost no direct engagement between these companies with the sugarcane farmers or farm workers.
<i>Certification bodies</i>	Two certification bodies are active in the sugar sector in India - Bonsucro and Fairtrade International. Their role is to set sustainability standards and certify farmers and mills who follow this standard.
<i>Civil Society Organisations</i>	Civil Society Organisations constitute of non-governmental organisations, community based organisations, social movements, activists and human rights defenders who work to protect the rights and interests of people especially those who are vulnerable and marginalised. In the context of sugarcane in UP CSOs work on issues of decent work, labour rights, farmer issues, women's rights and the environment etc. CSOs also play a critical role in providing the farmers with trainings, formation of farmers' groups for better adoption of new techniques as well as knowledge building.
<i>Trade Unions</i>	Trade Unions represent workers and farmers for dialogues and negotiation with the government and the industry. Some of the trade unions active in the UP sugar sector are – Bhartiya Kisan Union, Akhil Bhartiya Tyagi Bhoomihar Kisan Sangh etc.

## 3.2. PROFILE OF FARMERS

Category of farmers	Parameters	Details
<i>Marginal farmers<sup>xix</sup></i>	<i>Landholding size and ownership</i>	Marginal farmers own land up to 1 ha. These farmers cultivate crops on the land owned by them or their direct family members.
	<i>Different sources of household income</i>	The primary source of income of these farmers is sugarcane cultivation. However, supplementary sources of income become crucial for sustenance.
	<i>Participation of family members in the cultivation process</i>	Marginal farmers do not have the resources to hire farm workers. 84% of the farmers interviewed stated that their spouses and other family members take part in cultivation, cutting and cleaning of the cane during harvesting. For 15% of the farmers, their children also help in cleaning of cane and carrying the leaves for fodder for the cows from the farm to their homes.
<i>Small farmers<sup>xx</sup></i>	<i>Access to credit</i>	The farmers holding Kisan Credit Cards can access institutional credit facilities with banks with an interest rate of 3% to 7%. In addition, they often take credit from local money lenders at an interest rate as high as 60% per annum.
	<i>Landholding size and ownership</i>	Small farmers own land between 1 to 2 hectares. Majority of them undertake cultivation on their own or family owned land, but a small section depends on tenancy land by paying a rent of ₹ 14,000 to ₹ 16,000 per hectare.
	<i>Different sources of</i>	Their land use is diversified with other crops besides sugarcane. 25% of the small farmers also earn from producing wheat, paddy

<i>Big farmers<sup>xxi</sup></i>	<i>household income</i>	and vegetables. 10% of the farmers interviewed in this category are engaged in daily wage labour in agricultural fields and 6% in the construction sector. 65% of the small farmers depend completely on sugarcane, 35% opt for secondary sources of income.
	<i>Participation of family members in the cultivation process</i>	The small farmer may or may not hire workers for cultivation of sugarcane depending on their landholding size and unavailability of family members to do it.
	<i>Access to credit</i>	Like marginal farmers, the small farmers too access credit from institutional (banks) as well as non-institutional sources at varying rates of interest contingent upon the source of credit.
	<i>Landholding size and ownership</i>	Big farmers own over 2 ha of land on which they cultivate different types of food as well as cash crops. Often big farmers also take land on lease to increase area under sugarcane cultivation. The average size is from 2 ha to 5 ha.
	<i>Different sources of household income</i>	Big farmers have greater access to resources (such as financial and land) also they have higher risk bearing capacity. They grow cane largely as an additional source of income to support their needs other than those for their subsistence. The cultivation of crops in their farms therefore is more commercialised and diversified with more a greater portion of their land being allocated for the cultivation of cane, because of higher and steady income.
	<i>Participation of family members in the cultivation process</i>	Family members of big farmers do not participate in the cultivation process. Instead, farm workers are hired. While big farmers are engaged in the entire process of cultivation the work is done by the hired labour.
	<i>Access to credit</i>	Big farmers access credit from institutional sources only as they are able to repay more smoothly and also their credit amount eligibility is higher than the small and marginal farmers.

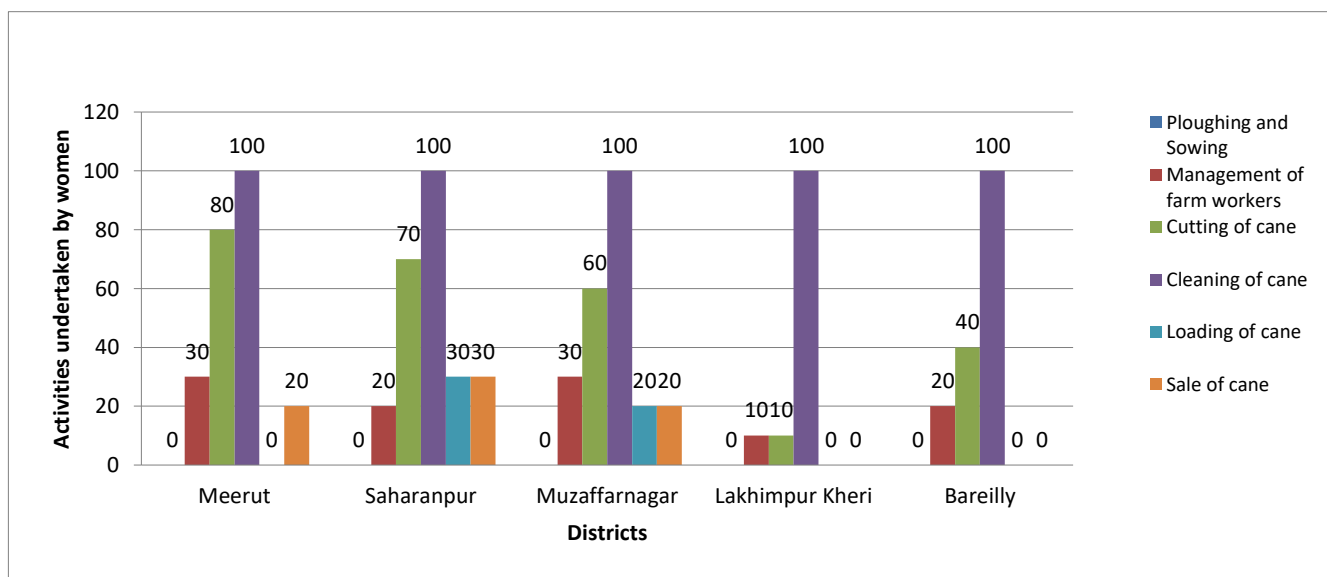
## 3.3. STATUS OF WOMEN FARMERS

### 3.3.1. Participation of women in the cultivation process

Women farmers covered under the study were found working as shadow farmers, without decision making power. While women farmers contribute their labour as much as male farmers do they are not recognised as farmers. The study revealed that in all five districts the participation of women farmers is limited to only cutting and cleaning of cane. Other activities like management of farm workers, payment of farm workers, or sale of cane to mills are usually taken up by male farmers.

10% to 30% of the female farmers were found to be involved in management of farm workers and 20% to 30% of the women farmers were found to be engaged in loading of cane (a physically arduous labour, hence done by men) and sale of cane to the sugar mills.

**Figure 2: Participation of Women in Cane Cultivation**



The most important determining factors in the context of women’s participation in the cultivation process of sugarcane are the following:

- 1. Caste affiliation of the family:** Women belonging to higher caste families (general caste and OBCs<sup>xxii</sup>) do not participate in sugarcane cultivation or other income-generation activities. Cultivation work is done by men and women farm workers. Women belonging to Scheduled Castes households are more likely to work in agricultural fields along with their spouses and/or other family members.
- 2. Size of land holding and financial resources available in the family:** The dominant castes groups in the villages who are also the ones with bigger landholding do not engage their family members in farm work. In Scheduled Castes families with small landholdings of up to 1 ha women work along with their husbands and other family members in the fields.
- 3. Absence of male members in the family:** It is a norm that male members of a family will undertake cultivation work. But in case of women it is primarily when there are no male members in the family that women undertake this role. Women who are single or whose husband is sick or disabled play a more active role in decision making and managing the sugarcane cultivation process by themselves, irrespective of their castes, status or economic resources available.

### 3.3.2. Land Ownership among Women

Land holding pattern for women is a reflection of the paternalistic social norms of the region. Women constitute a third (32%) of India’s agricultural labour force and contribute 55-66% to farm production, according to the gender and land rights database of the Food and Agriculture Organization of the United Nations (FAO). Yet, in a large agrarian state like Uttar Pradesh percentage of women holding land is limited to a mere 6.1%.<sup>xxiii</sup> The proportion of women farmers is even lower in the sugarcane sector. Only 2% - 5% of the Cane Society members in the 5 districts comprise of female farmers with landownership rights.

**Table 4: Ownership of Land by Women**

**The study found that women get land ownership under the following two circumstances:**

- The land ceiling in U.P. is 5 haxxiv, limiting individual ownership to 5 ha of land in their name. Additional land (beyond 5 ha) bought by a male farmer is then registered in the name of his spouse or other family members;
- In case of the demise of a male farmer, his land is equally divided amongst his surviving spouse and male heirs. In the absence of a male heir, the entire land ownership is transferred to his surviving spouse.

Land ownership by women alone does not determine their participation in the cultivation process or control over decision making aspects. Interactions with women farmers, who are taking a proactive role in the cultivation process highlighted the social norms that exist with respect to women's participation in economic activities. Women farmers commonly face criticism and discouragement when they get involved in cane cultivation, especially in the management of farm workers and sale of crops.

Officials of the cane society acknowledged that social norms prevent women farmers from visiting cane society offices and from participating in trainings on cultivation techniques or accessing available information offered by the cane societies. Some women farmers have challenged such norms by taking on sugarcane cultivation.

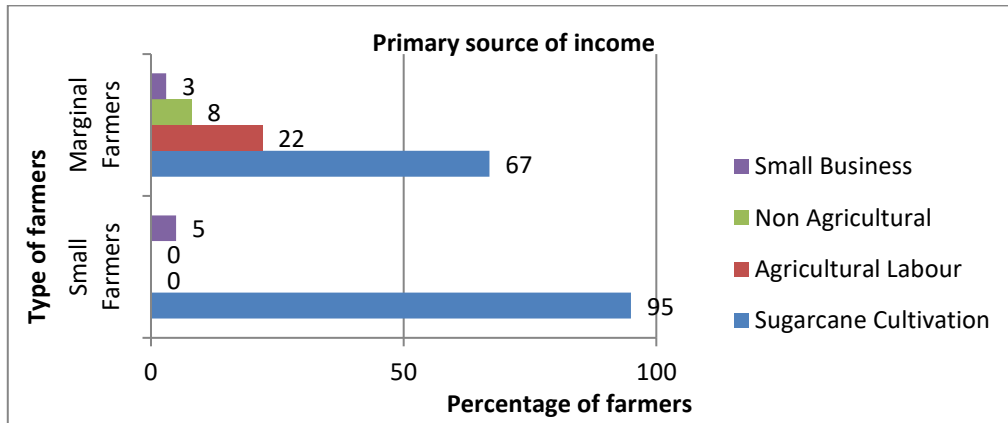
## 3.4. CHALLENGES FACED BY SUGARCANE FARMERS

### 3.4.1. Income of marginal and small farmers

Farmers in the 5 districts have a high income dependence on sugarcane cultivation. It is the primary source of income for 67% of the marginal farmers and 95% for the small farmers. Marginal farmers owing their small land holding cannot be dependent solely on sugarcane cultivation for cover living expenses. They are therefore engaged in agricultural and non-agricultural wage labour alongside.



**Fig 3: Primary Source of Income**



Data indicate that for 67% of the marginal farmers the primary source of income is sugarcane cultivation as against the 95% of the small farmers remaining marginal farmers are deriving their primary income from agricultural labour (22%), non agricultural labour (8%) and small business (3%).

Of the total no. of smallholder and marginal farmers interviewed the study indicated that 22% of the marginal farmers opted for agricultural labour alongside sugarcane cultivation as a secondary source of income. 11% of the marginal farmers were engaged in non-agricultural labour, as a secondary source of income mostly in construction work, while 3% also ran small businesses. 95% of the small farmers were engaged only in sugarcane cultivation.

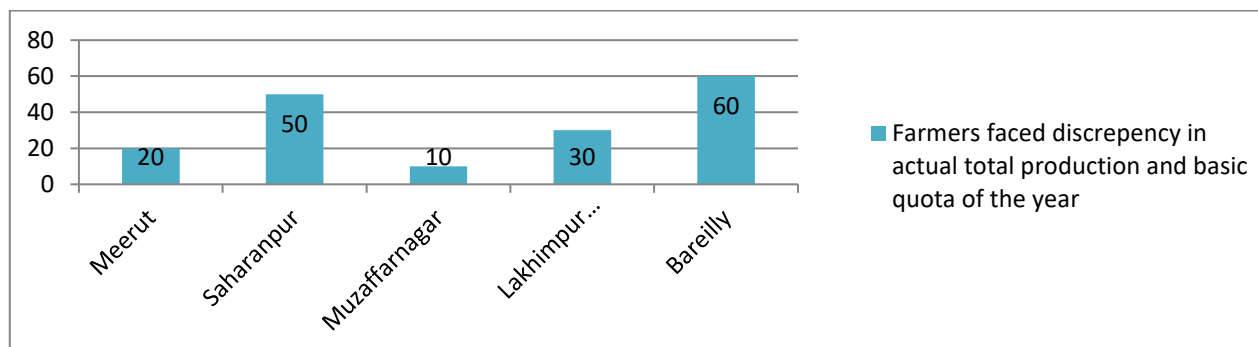
Most of the small and marginal farmers are unable to sell their full produce to the mills every year due to delay in supply of tickets, non-membership in cane societies (when cultivating on tenancy land) and delay in payment from mills. These challenges force them to sell their cane to the local informal jaggery producing units known as *kolhus* at rates that are 40% - 50% lower than the SAP, thereby decreasing their income from sugarcane cultivation.

### 3.4.2. Supply chain issues and challenges

The study found that small and marginal farmers face specific challenges related to the cane procurement process which significantly affect the well-being and income of these farmers:

**Gaps in annual sugarcane survey:** An annual survey of sugarcane cultivation is conducted by the cane societies to provide an estimate of sugarcane production. The study found that in some villages in Bareilly, Saharanpur and Lakhimpur Kheri districts the survey is not conducted and the data is collected from a few farmers. Some small and marginal farmers complained that the officials completed the survey by just meeting the village *Sarpanch*. The respondents also shared that often the average yield of the last 3 years is used to calculate the estimate quota of supply for a village. Farmers are assigned basic quota of cane supply based on these surveys. These process gaps significantly affect the actual estimates of production and small and marginal farmers most often get left out. For any additional area that has been brought under cultivation the mills are required to issue a bond to the farmers implying that they will be procuring the additional produce of the farmers for crushing in the coming season and which increase the basic quota of the farmers for the coming year, however the process is flawed most of the times in absence of timely issuance of supply tickets they are forced to sell the produce to local jaggery making unit. As high as 60% of the farmers from our sample in Bareilly mentioned that there is significant difference between their actual production and the basic quota of cane supply assigned to them.

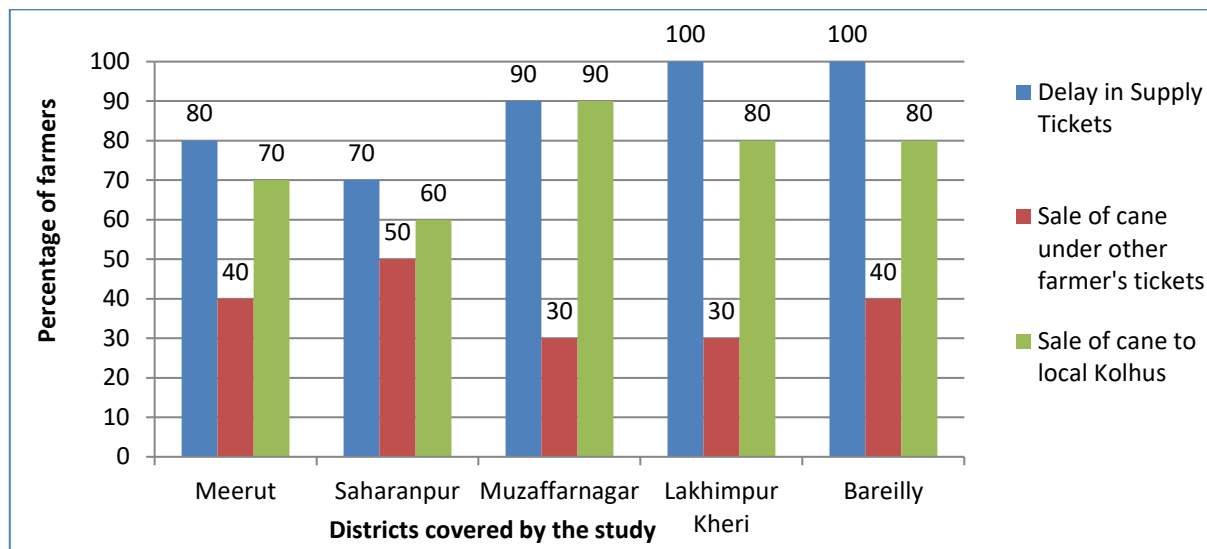
**Figure 4: Farmers who received basic quota less than their actual production**



The cane society has recently started promoting the use of GPS enabled systems to enumerate the size of the land in order to maintain accuracy. However, the entire system is prone to errors and often leads to discrepancies. The study found that difference between actual production and the basic quota ranges between 150-220 quintals. Farmers are forced to sell their produce beyond their basic quota to middlemen or local jaggery producing units or *Kolhus* thereby resulting in loss of income between ₹ ( 48,000 to ₹ 72,000<sup>xxv</sup>) depending on cane variety.

**Delays in receiving cane supply tickets:** Farmers plan their sugarcane harvest based on the supply tickets issued to them by the sugar mills. This is a time sensitive process because a gap in harvest and supply would result in lesser sugar recovery of the crop and a late harvest would result in the farmer missing the procurement window also, this leaves the farmer with a comparatively lesser window for the sowing of the next season crop. The study found that there are delays in issuing the supply tickets and the existing communication mechanisms are not effective. Marginal farmers found it most challenging to plan their harvest and rely on word of mouth information. Marginal farmers are unable to hire farm workers for harvesting and therefore start harvesting sugarcane a few days prior to the expected supply date. Other farmers in contrast can hire workers to do the harvesting after knowing the exact supply date. The study found that 70% - 90% of the marginal farmers are forced to sell their cane to *Kolhus*<sup>xxvi</sup> at 40% - 50% lower prices because of delays in receiving supply tickets after harvest. Debt burden among marginal farmers reduces their ability to hold their harvest for supply tickets and force them to go for the distress selling to *Kolhus*. According to the study, 40% - 50% of the marginal farmers supply their cane to the mills using supply tickets of other farmers which they mutually adjust later when their own tickets arrive. While in many cases this was done as a mutual understanding and cooperation among farmers this also gives rise to prevalence of 'cane mafia' as was found during the study in some places in Bareilly.

**Figure 5: Implications of delayed issuance of supply tickets**



During the study some farmers in Lakhimpur Kheri, Saharanpur and Muzaffarnagar shared that there have been incidents of corruption where false supply tickets were issued to big farmers. Since the mills have a fixed quota for cane, any additional ticket issued to one farmer reduces the number of supply tickets for other farmers. Farmers shared that in such cases it is the marginal and small farmers who lose out to influential big farmers. The farmers also shared gaps in the process of handing over of the tickets. The study found that all supply tickets for a village are often handed over to one farmer and incidents of losing supply tickets are common.

Discrepancy in cane weighing process and weight deductions: The study found 90% of the small and marginal farmers feel that the cane weighing process at the mill gates or the mill run collection centres are faulty. Most of the farmers shared that there is a major difference in the weight of cane when measured at private weighing scales as compared to mill collection centres. The study also found that it is a general practice for mills to deduct 2% - 5% from the actual weight supplied to adjust potential loss of recovery due to drying. Farmers shared that the deduction of weight is inconsistent and unfair given that the potential loss of recovery is due to the delays at the end of the mills and not because of the farmers.

*In Meerut, a Centre in-Charge explained that the sugar mills deducts money from their salaries if the cane gets decayed or has leaves. Even though the mills are responsible for carrying the canes from the centres to the mill gate, this process is often delayed due to the unavailability of transport. Any such delays result in a weight deduction of up to 5% of the total cane being supplied by them to the mills. As a result, the Centre-in-Charge tries to compensate for it by deducting a standard 2% - 5% from the total weight of sugarcane supplied by each farmer.*

**Extremely long wait time at mill supply gates:** The study found that the farmers often have to wait for up to 72 hours without basic amenities like drinking water for them or their cattle. During the study farmers shared that in most cases, the mills do not maintain clean and functional toilets or any resting space for the farmers. No action is taken to improve these conditions despite farmers raising

this issue with the mill authorities.

#### Death of a farmer while waiting at mill gate

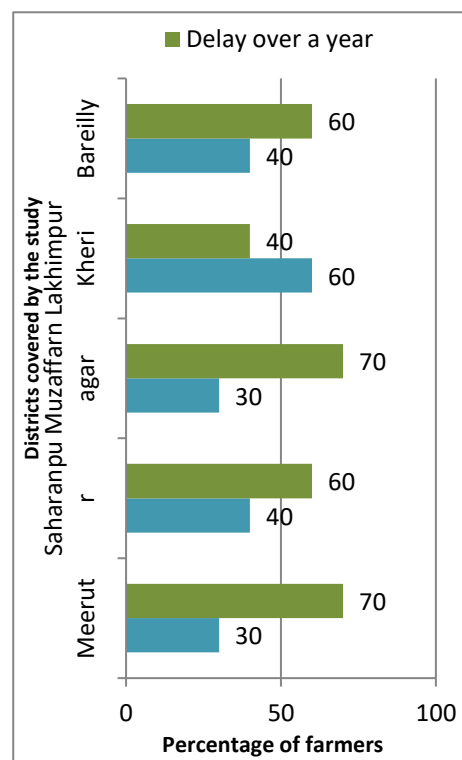
During a discussion with a group of farmers queued up outside a private sugar mill in Muzaffarnagar District, it was revealed that a farmer died while waiting to deliver the cane at the mill gate due to severe cold in the month of December in 2016. They shared that this farmer had been waiting at the mill gate for a couple of days without proper food, water or sleep and he died just after he supplied his cane at the mill gate itself. The local wing of the Bhartiya Kisan Sangh<sup>xxvii</sup> and other farmers demanded that the mill compensated the deceased farmer's family.

Figure 6: Delay in cane payments

#### Severe delay in release of cane payments by the sugar mills:

One of the key concern that came forth across all 5 districts was the severe delay in receiving payments against the supply of cane. According to the Uttar Pradesh Sugarcane (Regulation of supply and purchase) Act 1953, all sugar mills are supposed to clear payments to farmers within 14 days of purchasing cane, else pay an interest of 15% on the principal amount<sup>xxviii</sup>.

The study found that 60% - 70% of the farmers reported having received the payment for the sugarcane sold to the mills in 2016 crushing season only in October 2017. Farmers also reported an incident where 5 private mills across the 5 districts closed down without paying the farmers their dues. Of the total no. of farmers surveyed only 40% of the farmers said that they have received payments within two of supplying the cane. None of these farmers received any interest against the delayed payments from the mills as mandated by the law according to which the mills are mandated to make payments 14 days of cane purchase from farmers, failing which 15% annual interest is charged on the due amount for the period of delay.<sup>xxix</sup>



As on March 31 2018, cane arrears in Uttar Pradesh stood at over ₹ 120 billion, recording the highest ever in the country. This was believed to be because of a sharp fall in sugar prices in the domestic as well as the global market. This was also due to surplus availability of 4.5 million metric ton of sugar over and above the required closing balance during the current 2017-18 season in India.<sup>xxx</sup>

#### Cooperative Mills Better than Private Mills in Timely Payments

During the study, interactions with farmers in target areas of different sugar mills, it came forth that the key defaulter mills which had pending arrears to farmers for more than a year were all private mills. In contrast, since Cooperative mills do not have a profit making model, they are able to pay the farmers even by incurring losses.

The state government introduced some interim measures to offer relief to the mills and farmers<sup>xxxi</sup>. ISMA stated that the Government of Uttar Pradesh and ISMA were in dialogue to find solutions to

the recurring problem of cane arrears. A senior representative of ISMA stated, during an interview, that the probable solutions being discussed with the Government of Uttar Pradesh and ISMA are the following:

1. Conversion of sugar to ethanol as the rate of ethanol is higher than sugar. Farmers can be paid through sale of ethanol.
2. Payment to farmers could be made by sale of other by-products of sugarcane rather than depending solely on sugar. However, the price of molasses has dropped drastically to as low as 3-5 ₹ per quintal.
3. Payment received by sugar mills from the government on sale of electricity being generated in their cogeneration plants from could be used to cater to the cane arrears issue.

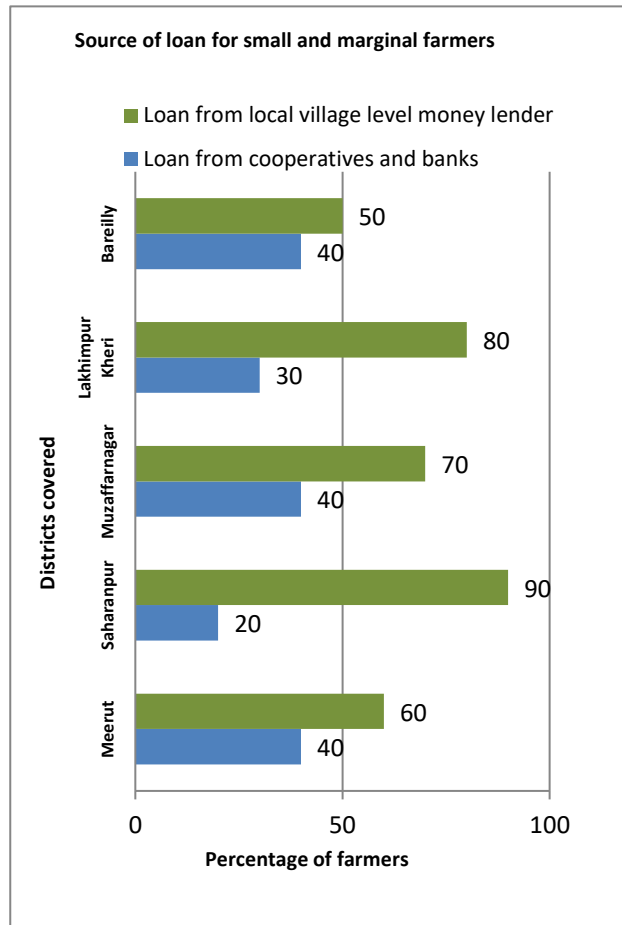
Increase of subsidy on export taxes to be paid to the Government of India on sale of sugar in the global market. Discussion with ISMA brought forth the challenge of accessing the international market for sale of sugar by the mills in India, as a very different standard of sugar is required by international buyers. Most mills do not have a distillery to produce refined sugar. Also India cannot compete with Brazil on the cost of production of sugar and hence India would only be able to sell at a higher price as compared to Brazil in the global market.

However, a senior representative from Cane Commissioner's office in Uttar Pradesh mentioned that it will be difficult for the government to link the market price of sugar, because this would make the farmers vulnerable to fluctuating prices of sugar in the domestic and international market. The most lucrative and beneficial aspect of growing sugarcane over other options like cotton and wheat for commercial purposes in Uttar Pradesh is the SAP imposed by the Cane Department, which is a security for the farmers. Cane prices, hence, cannot be left to be determined by market forces of demand and supply.

**Delayed payments leading to debt burden:** Delay in payments by the mills forces farmers to take loans to meet their social and medical expenses, as well as for input cost of cultivation for the next season. A high number of marginal and small farmers take loans from the local money lenders as compared to the cooperatives or banks. Interest rate is high against loan from local money lenders and is up to 60% per annum as compared to 3 to 7% per annum for institutional credit e.g. Kisan credit card. During the study it was found that farmers take loans from different sources at the same time which makes them very vulnerable. 20% to 40% of the farmers had availed loan from both money lenders and banks or cooperatives.

Apart from availing loans when sugar mills fail to pay the farmers on time, the **marginal farmers also resort to other means to get immediate cash** for running the household as well as to cater to

**Figure 7: Source of loan for small and marginal farmers**

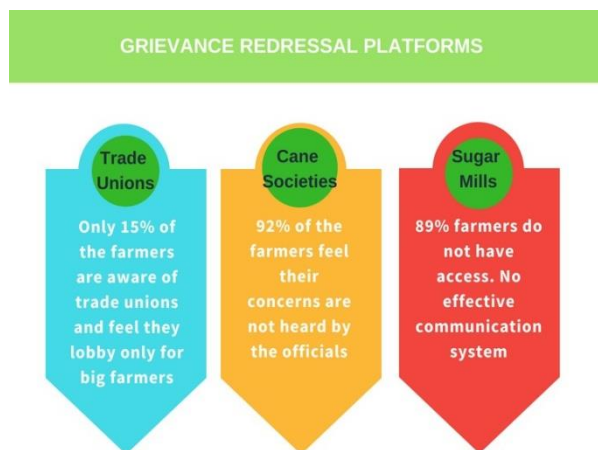


emergencies in their families. Distress selling of significant portions of their harvest to local *Kolhus* against immediate cash is quite common.

### 3.4.3. Farmer grievance redressal and engagement

The three key grievance redressal platforms for farmers are Trade Unions, Cane Societies and Sugar Mills. It was found that none of the platforms are currently addressing the farmers' issues in an effective manner especially for small and marginal farmers. Women farmers felt completely left out in such processes without their representation or representation of their issues.

**Figure 8: Grievance redressal platforms**



CSOs are in a position to engage these stakeholders in a multi-stakeholder platform to devise strategies to establish more effective channels of communication and grievance redressal mechanisms.

The study found that most trainings organised by the cane societies and sugar mills to orient farmers on the use of new agricultural techniques were mostly accessed by big farmers. Among the marginal farmers, **only 56% of the male farmers and 30% of the women female across all 5 districts were aware of such trainings being conducted** by the mills and the cane societies. Only 10% of the small

and marginal male farmers were found to have attended such trainings. The study found that no women farmers participated in such trainings primarily due to the societal barriers which prevent them from participating in public forums.

## 3.5. VULNERABILITIES OF FARM WORKERS

Farm workers in the sugarcane fields are not a homogenous group and have variations in terms of their gender, age and place of origin. Farm workers can be further categorised based on their type of recruitment, mode of payment and duration of stay in the villages for work. The findings of the study are being listed in this section based on the interactions with different categories of farm workers engaged in sugarcane cultivation.

### 3.5.1. Types of farm workers

68% of the farm workers interviewed were daily wage workers while 24% were working on a contractual basis. Only 8% of the workers interviewed were full migrant workers.

**Table 4: Profile of Farm Workers**

Type of workers	Daily wage	Contractual	Migrant workers
<i>Profile of workers</i>	Both male and female. Engaged as single workers. Same or nearby villages.	Both male and female. Usually families take up contracts. Same or nearby villages.	Mostly men and young boys. Fewer cases of family engagement. From other states – Bihar, West Bengal, Madhya Pradesh, Odisha, Chhattisgarh.
<i>Duration of engagement</i>	On a daily basis	For the entire duration of the particular task (ploughing, sowing and harvesting)	For the entire season of sugarcane cultivation - August – September to April – May.
<i>Means of hiring</i>	Through known networks of other farmers or farm workers	Through known networks of other farmers or farm workers	Mostly through contractors
<i>Employer</i>	Small farmers	Big farmers	Big farmers
<i>Payment</i>	Direct	Direct	Direct or through contractors
<i>Amount of payment</i>	Male: ₹ 300 – 400 Female: Up to ₹ 200	3000 for ploughing 1 ha of land. ₹ 50 for cutting and cleaning 1 quintal of cane	Adult workers: ₹ 6000 – 10000 (per month) Young boys: ₹ 2000 – 5000 (per month)

### 3.5.2. Working condition and challenges faced by farm workers

**Daily wage workers:** For daily wage workers in sugarcane cultivation, it's their secondary source of income. 80% of the workers are engaged in agricultural labour work for other crops like wheat and vegetables. Remaining 20% take up jobs in nearby cities or towns majorly for construction work or in the brick kilns near their respective villages as a primary source of income.

- **Gender Pay Gap:** Payment made to the daily wage workers is highly discriminatory of gender with a significant variation in the amount of wages paid to men and women workers. Male workers get paid ₹ 300 to ₹ 400 per day and women are paid up between ₹ 80 to ₹ 200 per day for the same work.
- **No standard minimum wage followed:** A study conducted by Fair Labour Association<sup>xxxii</sup> noted that the farm workers whether hired directly by the farmers or through third party labour contractors or agents were always paid much lower than the State Government prescribed minimum wages. There is often a shortage of labour especially during the harvesting season, due to migration. Depending on such factors, the study showed that the wages vary between ₹ 200 to ₹ 400 for men and ₹ 80 to ₹ 200 for women as against the state government specified

minimum wages of ₹ 293, ₹ 322 and ₹ 361 for unskilled, semi-skilled and skilled workers<sup>xxxiii</sup>.

- Late payment of wages: These workers are dependent on their daily income which aids the sustenance of their households. However, the study found that as high as 81% of the farm workers are not paid on the same day, and experience a delay of up to 10 – 15 days.

**Contractual workers:** The standard payment rate for these workers is ₹ 1,500 per acre for sowing and up to ₹ 50 per quintal for cutting the cane. In villages where labour is available in abundance, the rate for cane cutting may be as low as ₹ 25 per quintal. In comparison to daily wage and migrant workers, a contractual work arrangement is more beneficial for both the workers as it allows more flexibility.

- **Delayed payment:** The farmers in most cases pay the workers only after receiving the payment from the mills which could be delayed by a month or more. The farm workers who have a limited source of income find it difficult to cope with such delays this is the source of their sustenance.
- **Unfair deduction of wages:** In some instances, the farmers also deduct money from the workers' payment if the mill does not pay the full amount because of decay of cane or that the canes have leaves remaining on them. Unfair weight deductions on part of the mills in turn affect both the farmers and the workers.

**Migrant workers:** The study found that labour agents visit the villages in the months of June/July to understand the requirement for labour from the big farmers. These farmers pay a commission to the agents as a token of their commitment. These agents in turn pay an advance amount to the prospective adult labourers and/ or to the family members of the child labourers while recruiting them. This advance is then deducted by the agents from the workers' wages at the end of the season.

- **No extra payment for additional work done:** The workers end up caring for the cattle and doing odd jobs in the household in addition to the farm work without extra pay.
- **Verbally abused and threatened:** If the workers feel unwell or are unable to go to work for any reason, they are often verbally abused by the farmers. They are threatened to be fired from their jobs, and no leave is given.
- **Payment at the end of the season:** The farmers feel that the workers would go away if they are paid on a monthly basis. Farmer's payments are therefore often held back till end of season.
- **No weekly offs:** From August – September to April – May, the workers are made to work on all days of the week without any weekly off.

### 3.5.3. Exploitation of child migrant workers

A study by Fair Labour Association<sup>xxxiv</sup> bore evidence that children working in sugarcane are exposed to poor working and living conditions, which can lead to health issues and interfering with their education. They are either unpaid or underpaid. Some of these findings were validated in this study. During the study farmers said that children in the age group 12-16 years, are brought by labour agents from Bihar, Chhattisgarh, and Madhya Pradesh. During the study migrant children were found working in sugarcane fields in Muzaffarnagar and Meerut. However, the correct age of these children could not be verified.

During the study the following forms of exploitation being faced by the child migrant workers were shared by farmers and local villagers:

- **Physical and verbal abuse of child migrant workers:** The child migrant workers living in the private space of the farmers' houses are often abused verbally and physically. In some cases the



farmers do not provide adequate food to these children, forcing them to run away from their jobs and village due to extremely abusive conditions.

- **False information about nature of work at the time of hiring:** Children are often hired by agents under false pretext of jobs in factories and sweatshops in Uttar Pradesh. They or their parents get to know about the actual nature of work, only on arriving at the village farms. . The agents pay lump sum advance money to the parents while hiring the children, due to which the parents are unable to withdraw the children from the work. The farmers also pay a commission to the agents due to which they try to recover the cost for as long as possible by making the children work, even after they get to know that the children have been hired under such false pretext.
- **Extremely low wages:** The wages received by the child workers is extremely low ranging between ₹ 2000 to ₹ 5000 per month. The children or their families usually have no bargaining power in this matter as it is always the agents who negotiate their wages with the farmers. The agents do not care about their salaries because the commission is fixed irrespective of the salary amount that is committed by the farmers for these children. Hence, children end up working under such severe forms of exploitation for such small amounts of money.
- **Non-payment of salary by the agents:** The farmers often handover the entire salary of the child workers to the agents at the end of the season. Often there are instances when the agents do not give the money to the child workers or their families and abscond with it. The children and their families do not receive any payment in such cases, after 8 – 9 months of hard work in the sugarcane fields.

*A 14 year old boy and his older brother were hired by an agent from Bihar under the pretext of getting them a job in a shoe factory in Uttar Pradesh. The agent brought with him 10 to 12 boys to Uttar Pradesh under the pretext of offering work to them in a factory. Only upon arrival in Muzaffarnagar, the boys were told that they would be working in the sugarcane fields. The farmer who hired the two brothers upon knowing that they have been cheated agreed to release both of them if their families could pay back ₹ 10,000 which he had already paid as commission to the agent. Since the family did not have the resources to return this money, the younger sibling was left behind to work and compensate for the commission paid to agent. At a meagre salary of ₹ 2000 / month, a total of five months of unpaid work needs to be put in by the 14 year old to repay the commission. <sup>xxxv</sup>*

### **Bondage in sugar supply chain of Uttar Pradesh**

The Bonded Labour System (Abolition) Act, 1976<sup>xxxvi</sup> prevents any form of bondage of any individuals and is enforceable under the jurisdiction of all District Collectors across India. Agriculture sector being informal in nature continues to allow such instances of bondage wherein a heavy amount of loan being taken from the farmers by the workers is repaid through years of free service and often by the next generation as well.

One of the examples shared by a respondent from Muzaffarnagar is about a worker<sup>xxxvii</sup> who wanted a loan of ₹ 5 lacs to build a new house. He offered to work for a farmer in exchange of this loan unsure of the rate of interest he would be charged. The worker agreed to work at a daily wage of ₹ 200. In this arrangement it would take him 6.8 years to repay only the principal amount of the loan, with the interest amount being over and above that.

The government departments are understaffed at the district level. Labour inspectors do not have

the time and resources to monitor the various labour practices at the farm level whether pertaining to child labour, forced labour or other violations. During the study, the farmers and communities shared they have never seen any monitoring visit by a labour officer around their farms.

## 3.6. RISKS AND CHALLENGES ASSOCIATED WITH LAND OWNERSHIP

The study showed that there are three kinds of land ownership prevalent in the 5 districts of Uttar Pradesh which is equivalent to most of the states in the northern part of India. The land ownership in these districts where farmers cultivate sugarcane could be owned either by the farmers or their spouses (in case of female farmers interviewed). It could also be in the name of any other older member of the family, often the eldest male member of the household. In very few cases land has been taken on tenancy basis for cultivation purposes.

12% of the farmers interviewed during the study had taken land on tenancy paying a rent of ₹ 6000 to ₹ 8000 per month, per acre. In Meerut, the land rentals were noted to be highest ranging up to ₹ 9000 per month for one acre. The same could be attributed to proximity with the national capital region.

In case of the farmers cultivating their own or family land, following was the distribution of land ownership:

- 55% of the farmers interviewed owned the land in which they were cultivating sugarcane, indicating that the land had been registered in his or her name. Amongst them, only 10% comprised of female farmers;
- 25% of the farmers cultivate land owned by other family members, usually their father or father-in-law (in case of female farmers).
- 20% of the respondents comprise of all female farmers, interviewed during the study, participate in the cultivation process of sugarcane on land owned by their spouses.

An issue brief published by Landesa in 2012<sup>xxxviii</sup>, reflects on the land ownership patterns in Africa and India according to which the ownership of land determined a farmer's investment in the cultivation process. A secured form of land ownership meant that the farmers were more proactive in trying newer techniques of agriculture and making financial investments on agricultural inputs.

This is attuned to the findings of the current study wherein the farmers cultivating sugarcane on tenancy land faced the following challenges:

1. **No membership in the Cane Societies:** The Cane Societies have the mandate to register farmers as members only when they have the land registered in their own names. Farmers take land on tenancy based on verbal agreements and never legally registered. They cannot access agricultural inputs like fertilisers and pesticides on credit from the Societies at subsidised rates and on credit or become members. These farmers have to buy the inputs from commercial shops by making immediate cash payment which forces them to take credit since payments are not made on time by mills.
2. **Unable to sell cane to the mills at the SAP:** As per law, only registered members of the Cane Society are allowed to sell cane to mills. For this reason tenant farmers which constituted 12% of the study respondents, can sell the cane only to the local *Kolhus* at a much lower price resulting in loss of income.

**3. Access credit on high interest from local money lenders:** These farmers have to then access credit from the local moneylenders at an interest rate of up to 60% per annum. Farmers keep their land as mortgage for any loan that they access from banks or cooperatives. The local money lenders are not governed or regulated by any legal framework. Since the farmers do not have any land ownership to provide as a security against the loan, in most cases, they have to mortgage gold jewellery as collateral.

Cost of cultivation becomes much higher for tenant farmers, given the rate of interest at which they have to take loans. Also the return on the cultivation is much lower as they are unable to avail the SAP. Sugarcane is still a lucrative cash crop for these farmers as it is a steady source of income for the household. Hence, in spite of these difficulties they continue to cultivate sugarcane. These farmers were not interested in any kind of trainings on advanced methods of cultivation since they are unwilling to invest beyond the bare minimum on a land which they do not own.

The above noted case is not unique to Lakhimpur Kheri. It has been a common finding across all other 4 districts as well. The decision making pattern resulting into cultivation of sugarcane as the sole crop is guided by the same socio-economic factors as expressed by the group of marginal farmers in Lakhimpur Kheri.

Only big farmers have the opportunity to engage in a land planning process to diversify their agricultural produce. They were seen to be growing, most commonly, crops like wheat, paddy, vegetables, mango and flowering plants for commercial purposes. Women owning land in these families however do not play any active role in the decision making process. The male members – usually the husbands or their sons decide which crop would be cultivated in what quantity in the given land. Female sugarcane farmers belonging to affluent families in the village, with land ownership, usually do not have any participation in the agriculture process.

*Farmers in the target area of a privately owned sugar mill in Lakhimpur Kheri mentioned that the officials of the sugar mill and the Cane Societies have been encouraging them to diversify their crops in order to secure their income rather than just being dependent upon sugarcane. However, since this group of farmers had only up to 1 to 1.5 acres of land, they did not want to waste any land area on crops other than sugarcane because it has the highest selling price, also assured by the government. Growing crops additionally for household consumption is also not a viable option because the amount of wheat or paddy that can be grown in the land alongside sugarcane would not be sufficient for them. Hence they have not adopted the suggestions given by the sugar mill or cane society officials.*

## 3.7. RISKS AND CHALLENGES ASSOCIATED WITH WATER

### 3.7.1. Water conservation as a futuristic vision

Sugarcane production requires large volumes of water with an average of 20 mega litres of water/ha. At present, 80% of this water requirement is being met through groundwater extraction. India's Central Ground Water Board (CGWB) has estimated that only 162 billion cubic metres

(BCM)/year of groundwater is available for future irrigation, out of which around 40 BCM/year will be available in the sugar-producing states which includes Uttar Pradesh.

In the 5 districts under study, water is currently available in abundance as a result of which advanced methods of irrigation like drip irrigation or usage of water gun or sprinklers is not very popular. The majority of sugarcane farmers utilize traditional flood irrigation practices, and tend to overuse water. The increased costs for irrigation, particularly in terms of the additional energy and labour, also impacts net farm income. Farmers interviewed during the study were not aware of any water management systems that could be adopted to ensure a more responsible usage of water. They had no orientation on water conservational practices since it is not considered to be an important natural resource in this region. No sensitisation or trainings have been conducted by the agriculture department, NGOs, cane societies or sugar mills on water conservation practices.

In light of the crisis over availability of groundwater and climate change impacts witnessed, for example, in other parts of Eastern Uttar Pradesh like the Bundelkhand region and the Marathwada region of Maharashtra such initiatives need to be undertaken by farmers in the 5 districts of western Uttar Pradesh as well, wherein this study has been conducted.

### **3.7.2. Pollution control measures**

There are a total of 11 types of industries that are categorised as Gross Polluting Industries in India, out of which sugar mills and distilleries are both in red category indicating their status as highly polluting industries in India<sup>xxxix</sup>. All industries are mandated to have an Effluent Treatment Plant (ETP) to continue their operations. All sugar mills and distilleries have an online monitoring platform installed in their plants that record all effluent treatment and discharge undertaken by the respective units. This online monitoring platform is synchronised with the State Pollution Control Board and Central Pollution Control Board systems, thereby sending daily and even hourly updates to these two regulatory bodies under the Ministry of Environment and Forests.

Apart from lack of water conservation practices, the sugar industry – the mills and distilleries in several parts of Uttar Pradesh also threaten to pollute water bodies with discharge of waste water into riverine bodies by the sugar mills and distilleries. An assessment of the water consumption and waste water discharge status of the grossly polluting industries, undertaken by National Mission for Clean Ganga, Ministry of Water Resources, River Development and Ganga Rejuvenation, GoI, reflects that 32% of waste water discharge is being done by sugar mills which are the highest among all grossly polluting industries in the state. This is followed by the third highest discharge rate of 12% by the distilleries.<sup>xl</sup>

Grameen Development Society (GDS), a NGO working in Lakhimpur Kheri district is implementing a project on water governance. In some instances, untreated effluent discharged by a cooperative sugar mill has resulted in damage of paddy growing fields. The effluents discharged get released in the canals which in turn enter into the fields especially during the monsoons, causing crop damage and death of cattle. No action has been taken by the government authorities in spite of continued engagement by GDS and local community. In most cases farmers directly affected by the effluent discharge also supply sugarcane to the same mill. As a result, they hesitate to lodge formal complaints with the district administration, fearing cancellation of supply tickets by the mills. Even though the mills cannot use their discretion to randomly cancel the supply tickets of farmers based on such instances, the level of awareness among the farmers in the region is low on such legal norms – leading to their fear.

The National Clean Ganga Mission (NCGM) a campaign of the Modi Government initiated in 2017

aims at cleaning the Ganga River and improving its quality of water by 2019. To support this pledge the government has initiated several projects in the 11 states starting from Uttarakhand to West Bengal along the Indo-Gangetic plains. A senior representative of ISMA mentioned that several mills often take short cuts by not treating the water effluents. Following the mandate of this particular national campaign, 88 sugar mills and 46 distilleries along the Ganga Basin were issued closing notice across Uttar Pradesh, Bihar and West Bengal in 2017. A study was conducted across these mills and distilleries based on re-inspection undertaken by Central Pollution Control Board (CPCB). Again in March 2018, 40 sugar mills across these three states have been issued closure notice on account of their failure to meet the norms on discharge of effluents. These 40 mills have lost their environment clearance. They can only operate once these concerns are addressed to the specific environmental standards stated by the State Pollution Control Board (SPCB) and CPCB.

Maintaining all environmental standards is a requirement for any sugar mill and distillery wherein they have to acquire an Environmental Clearance Certificate based on a thorough third party led Environmental Impact Assessment (EIA) of the units. Environment has been a priority agenda for ISMA as well, however, given the current goals of the government, the industry (represented by ISMA) is engaging proactively with the Ministry of Environment, Forests and Climate Change (MoEF&CC) to develop a charter to adopt best practices to meet MoEF&CC regulations.

*During the study, farmers in the target area of a private sugar mill in Lakhimpur Kheri accounted for damaged paddy fields and cattle death due to discharge of untreated effluent by the mill. There have been stray instances spanning over a period of 7 – 8 years in these few villages. Farmers shared that the mills release the effluents during monsoons around the period of near about flooding of the water bodies.*

*However, lack of any evidence of discharge of untreated effluents from the monitoring data of CPCB, limited the possibilities of any further investigation. The official at the cane society that governs the supply of that particular mill indicated the economic dependency of the local communities on that particular sugar mill which has a high crushing capacity (hence holds an important economic position in the local ecosystem). Hence, there was unwillingness among government authorities to probe further into such stray reportage of these events.*

## 3.8. TRANSPARENCY OF THE SUGAR SUPPLY CHAIN

Traceability of the sugar supply chain in UP is available up to the level of farmers since their data is easily available with the sugar mills and the cane societies. However, such information is not publicly accessible. Farm workers remain untraceable due to the lack of any documentation by farmers when hiring. There are practically no disclosures by sugar mills about the composition of their farmers. While some large sugar mills do publish policies pertaining to farmers and related compliances but its implementation remains unverified.

### 3.8.1. Transparency trends in food and beverage sector

Companies in the food and beverage sector are now recognising the need for transparency, sustainability commitments, human rights assessments and third party certification for agricultural

commodities. While this is becoming more popular among multi-national corporations it is still nascent among their Indian counterparts. Some of the companies have started adopting sustainability certifications such as Bonsucro or Fairtrade International. in their Indian supply chains but it is at a very early stage.

General Manager of the Cane Procurement Department of a sugar mill, having its own distillery from where refined sugar is supplied to several F&B companies, expressed the following view on the mill's responsibility towards a just and transparent supply chain:

“We fulfil all legal requirements in the mills. Procurement of sugarcane is undertaken following the laws set by the Cane Department. No legal provision for procurement is violated by the mill. The mill also looks into the compliance fulfilment of all labour laws applied to the wellbeing of mill workers. However, whatever happens beyond the mill gates (indicating the sugarcane fields) is not our responsibility. We are not bothered about who is producing the sugarcane or under what conditions. Bonded labour and child labour are harsh realities prevalent in the current social context and the government is taking initiatives to curb such unfair labour practices. It is not our responsibility to track how sugarcane is being produced in each and every farm in our target area. We have more than 25,000 farmers registered as suppliers of cane to our mill. How is it possible to monitor the production process of each of the farmers? We only care about the quantity and quality of cane.”

### **3.8.2. What could lack of traceability lead to?**

All consumer facing brands, especially the F&B companies face the highest risk of losing their reputation which instantly affects their business in the global market. Emerging consciousness among young consumers about who is producing their food, using what inputs and under what conditions have led many businesses looking into their supply chains and their traceability. Companies now want to know as to who is producing the raw materials, where and in what conditions. Such efforts are visible through the various Supplier Guiding Principles and Code of Conduct being drafted and implemented by these companies. However, the study reflected that traceability of the sugar supply chain is a major point of concern in Uttar Pradesh. Management staff of the sugar mills supplying sugar to these international and domestic buyers are unaware of these sustainability standards or guidelines. Most sugar mills demonstrate zero accountability towards any issues or challenges being faced by the farmers or farm workers. Anything beyond the mill gates escapes their accountability framework.

# CHAPTER 4: CONCLUSION

The study shows that sustainability issues in the sugar supply chain are systemic. Women farmers, small and marginal farmers, farm workers, children and migrant workers are very vulnerable to human rights violations and in many instances are already facing violations. A transparent and sustainable sugar supply chain must address human rights issues. The aim of establishing a traceable and sustainable sugar supply chain calls for a holistic approach entailing involvement of all relevant stakeholders like the sugar industry (mills, ISMA and NFCSF), Department of Labour and Cane Development and Sugar Industry Department, CSOs and farmer and farm workers'. A more proactive engagement and accountability of companies sourcing sugar from Uttar Pradesh would also ensure a positive step towards the sustainability of sugar supply chain. The initiatives taken by the companies, mills, CSOs, trade unions and the Cane Development and Sugar Industry Department are largely focused on increasing the yield of sugarcane through trainings on various methods of cultivation.

While some food and beverage companies have supplier codes and guidelines on sustainability, its implementation is only limited up to the level of the suppliers (in this case the sugar mills). The study shows that in the farm to mill segment there are severe violations associated with farmers, workers, women and children. Companies need to engage with their suppliers at policy and implementation level to ensure adoption of fair practices throughout the supply chain. Sugar mills must acknowledge their responsibility for the farmers and workers and take strong measures to protect and support their rights and address their grievances in a transparent, timely and effective manner. The representative bodies of ISMA and NFCSF also need to play an active role in promoting fair practices in line with growing demands on supply chain transparency among international companies and investors.

The Department of Labour and the Cane Development and Sugar Industry Department need to work more collaboratively to address the issues pertaining to farm workers. The Department of Labour and the Cane Development and Sugar Industry Department need to play a more active role to prevent human rights violations in the sugar value chain.

A multi-stakeholder consultation was organised in September 2018 in Uttar Pradesh to present key findings of the study. Views and suggestions that emerged from the consultation have also been incorporated in this report.

# ANNEXURE 1: RELEVANT LAWS AND CONVENTIONS

Companies and their the supplier units (sugar mills in this case) supplying and sourcing sugar through supply chains clouded by lack of transparency and the above mentioned challenges are at the risk of violating major legal frameworks at the national as well as international level.

<b>Issue</b>	<b>Legal framework violated</b>
<i>Engagement of child labour</i>	India: Child Labour (Prohibition and Regulation) Amendment Bill, 2016 ILO: Minimum Age Convention, 1973 and the Worst Forms of Child Labour Convention, 1999 UK Modern Slavery Act (MSA) 2015
<i>Engagement of bonded or forced labour</i>	India: The Bonded Labour System (Abolition) Act, 1976 ILO: Forced Labour Convention, 1930 UK Modern Slavery Act (MSA) 2015
<i>False recruitment of migrants workers</i>	India: Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 ILO: Forced Labour Convention, 1930
<i>Unequal payment of farm workers</i>	India: Equal Remuneration Act, 1976 ILO: Equal Remuneration Convention, 1951
<i>Payment of less than minimum wages to farm workers</i>	India: The Minimum Wages Act, 1948
<i>Delayed payment to farmers for the cane supplied</i>	India: The Uttar Pradesh Sugarcane (Regulation of Supply and Purchase) Act, 1953



# ANNEXURE 2: STAKEHOLDERS COVERED BY THE STUDY

Following is the category-wise distribution of stakeholders covered by the study:

<b>Stakeholders</b>	<b>Number</b>		
<i>Farmers</i>	<i>Marginal Farmers:</i>	<i>Small Farmers:</i>	<i>Big Farmers:</i>
	IDI: Male – 40 Female - 30	Individual Interviewees Male – 10 Female – 26	Semi-structured Interviews: 45
	FGD: 120	Focussed Group Discussion 85	
<i>Farm workers</i>	Male farm workers: 22	Female Farm workers: 28	Child farm workers: 3
<i>Cane Development and Sugar Industry Department</i>	Additional Cane Commissioner, Uttar Pradesh		
<i>Cane Societies</i>	5		
<i>Sugar Mills</i>	Private Mills: 17 Cooperative Private Mills: 1		
<i>Companies procuring sugar</i>	0		
<i>Certification bodies</i>	2		
<i>Civil Society Organisations</i>	10		
<i>Trade Union Leaders</i>	3		

# BIBLIOGRAPHY

1. Agarwal, Kabir. (April 2018). Mounting Sugarcane Dues in UP Worry Farmers – and Local BJP Leaders. Retrieved from <https://thewire.in/agriculture/mounting-sugarcane-dues-in-up-worry-farmers-and-local-bjp-leaders>. Last seen on: 3<sup>rd</sup> June, 2018
2. Area under cane up by 12% in UP, sugar production to touch 100 lakh tonnes, Times of India, Aug 18, 2017. Retrieved from <https://timesofindia.indiatimes.com/city/meerut/area-under-cane-up-by-12-in-up-sugar-production-to-touch-100-lakh-tonnes/articleshow/60125319.cms>. Last seen on 4th June, 2018
3. Brazil sugar mills are coming to a grinding halt, and India is to blame, Financial Express, May 18, 2018. Retrieved from <https://www.financialexpress.com/market/commodities/brazil-sugar-mills-are-coming-to-a-grinding-halt-and-india-is-to-blame/1172490/>, Last seen on 4th June, 2018
4. Brief History of Sugar Industry in India, Sodhganga
5. Child Labour in the primary production of sugarcane, International Labour Organisation, 2017
6. Commodity Profile for Sugar, Department of Agriculture Cooperation and Farmers Welfare, March 2017
7. GAIN Report 2017, US Department of State, Retrieved from, [https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Sugar%20Annual\\_New%20Delhi\\_India\\_4-10-2017.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Sugar%20Annual_New%20Delhi_India_4-10-2017.pdf)
8. How food and beverage companies tackle forced labor risks in sugarcane supply chains. Know the Chain. 2017
9. Rating Methodologies for entities in sugar industry, ICRA, May 2017, Retrieved from <https://www.icra.in/Rating/ShowMethodologyReport/?id=435&Title=Sugar%20Industry&Report=Sugar,%20Rating%20Methodology,%2026%20May%202017.pdf>
10. Sally, Madhvi. (April 2018). Centre wants states to pay cane farmers upfront, Retrieved from <https://economictimes.indiatimes.com/news/economy/agriculture/centre-wants-states-to-pay-cane-farmers-upfront/articleshow/63707686.cms>. Last seen on: 28th May 2018
11. Sawhney, Tarun. The Current Sugarcane Pricing Policy & its Critical Analysis, ISMA
12. Scandal inside the global supply chains of 50 top companies, ITUC, 2016, Retrieved from [https://www.ituc-csi.org/IMG/pdf/pdffrontlines\\_scandal\\_en-2.pdf](https://www.ituc-csi.org/IMG/pdf/pdffrontlines_scandal_en-2.pdf)
13. Sugar and the environment: Encouraging Better Management Practices in sugar production, WWF, 2005
14. Sugarcane Information System (SIS) developed by the UP State Sugarcane Department (India), an Impact Assessment Study, Indian Institute of Sugarcane Research, Lucknow
15. Task and risk mapping of sugarcane production in India, Fair Labour Association, 2017
16. Union cabinet approves Rs 8,500-cr package to clear dues of sugarcane farmers. Hindustan Times. June 2018, Retrieved from <https://www.hindustantimes.com/india-news/cabinet-approves-rs-8-500-crore-bailout-package-for-sugar-industry/story-3a6sYrgnDvlQd5UQ1TUfjI.html>
17. Uttar Pradesh Tops in Sugar Production; West UP Towns Pave the Way, Business World, 30th May, 2018, Retrieved from <http://businessworld.in/article/-Uttar-Pradesh-Tops-In-Sugar-Production-West-UP-Towns-Pave-The-Way/30-05-2017-119175/>, Last seen on 3rd June 2018
18. Varma, Abhinash. Sugar problem: Resolve cane price-sugar realisations mismatch, Retrieved from <https://www.financialexpress.com/opinion/sugar-problem-resolve-cane-price-sugar-realisations-mismatch/1026021/>
19. Y.L. Everingham\*, R.C. Muchowb, R.C. Stonec , N.G. Inman-Bambera , A. Singelsd, C.N. Bezuidenhoutd. Enhanced risk management and decision-making capability across the sugarcane industry value chain based on seasonal climate forecasts. Retrieved from <https://www.agriskmanagementforum.org/sites/agriskmanagementforum.org/files/Documents/RiskMan%20Sugarcane%20Industry.pdf>

# END NOTES

- 
- i Oxfam India (2018). Widening Gaps – India Inequality Report 2018. [https://www.oxfamindia.org/sites/default/files/WideningGaps\\_IndiaInequalityReport2018.pdf](https://www.oxfamindia.org/sites/default/files/WideningGaps_IndiaInequalityReport2018.pdf) (Last accessed on 24 October 2018)
- ii Praxis, Oxfam India and Corporate Responsibility Watch (2018). Making Growth Inclusive-2018: Analysing Policies, Disclosures and Mechanisms of Top 100 Companies. <https://www.responsiblebiz.org/wp-content/uploads/2018/02/Making-Growth-Inclusive-2018.pdf> (Last accessed on 24 October 2018)
- iii Oxfam (2016). The Journey to Sustainable Food: A three-year update on the Behind the Brands campaign.
- iv Oxfam (2014). The Behind the Brand Scorecard Methodology.
- v District-wise Sugarcane Production. Sugar Industry and Cane Development Department. <http://upcane.gov.in/MediaGallery/Five%20Years%20Sugarcane%20Production.pdf> (Accessed 19 July 2018)
- vi IANS (May,2018). Record production: Sugar output crosses 31mn tonnes in India. <https://www.financialexpress.com/industry/record-production-sugar-output-crosses-31-mn-tonnes-in-india/1154379/>. (Last accessed on 14 June 2018)
- vii Data published by Department of Food and Public Distribution, Government of India
- viii India Brand Equity Foundation (2018). Sugar export norms relaxed: 1 million tonnes outflow likely by September. Business Standard. <https://www.ibef.org/news/sugar-export-norms-relaxed-1-million-tonnes-outflow-likely-by-september>. (Last accessed on 19 July 2018)
- ix PTI (2018). India may produce record sugar production 29.5 mn tonnes in 2017-2018: ISMA. Times of India. <https://timesofindia.indiatimes.com/business/india-business/india-may-produce-record-sugar-production-of-29-5-mn-tonnes-in-2017-18-isma/articleshow/63203597.cms> (Last accessed on 30 June)
- x Business World (2018). Uttar Pradesh Will Top Sugar Production 3rd Year In Row. <http://www.businessworld.in/article/Uttar-Pradesh-Will-Top-Sugar-Production-3rd-Year-In-Row-/10-05-2018-148817/> (Last accessed October 24 2018)
- xi Dilip Kumar Jha. (April 2018). Sugar prices fall to lowest level in 28 months owing to distress sales. Retrieved from [https://www.business-standard.com/article/markets/sugar-prices-fall-to-lowest-level-in-28-months-owing-to-distress-sales-118042401354\\_1.html](https://www.business-standard.com/article/markets/sugar-prices-fall-to-lowest-level-in-28-months-owing-to-distress-sales-118042401354_1.html). Last accessed on: 3rd June, 2018
- xii FE Bureau.( August,2018). Sugarcane industry makes weighty contribution to UP's economy, is main source of livelihood for 2.67 crore people. Retrieved from <https://www.financialexpress.com/opinion/sugarcane-industry-makes-weighty-contribution-to-ups-economy-is-main-source-of-livelihood-for-2-67-crore-people/1293002/>. Last accessed on: 3rd June, 2018.
- xiii District-wise Sugarcane Production. Sugar Industry and Cane Development Department. <http://upcane.gov.in/MediaGallery/Five%20Years%20Sugarcane%20Production.pdf> (Last accessed on 19 July 2018)
- xiv ENVIS Centre: Uttar Pradesh: Status of Environment and Related Issues
- xv Acts and Rules Relating to Sugar Industry [Amendments Incorporated Till October, 2017]: State Acts pertaining to Sugarcane and Sugar. [http://www.indiansugar.com/PDFS/State\\_Acts.pdf](http://www.indiansugar.com/PDFS/State_Acts.pdf)
- xvi Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution. Government of India. <http://dfpd.nic.in/sugar-sugarcane-policy.htm>. (Last accessed on 30 May 2018).
- xvii PTI (Jul 18, 2018). PTI | Jul 18, 2018. Retrieved from [http://timesofindia.indiatimes.com/articleshow/65038260.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/65038260.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst). (Last accessed on 19 July 2018).
- xviii Tarun Sawhney. The Current Sugarcane Pricing Policy & its Critical Analysis. [http://www.indiansugar.com/PDFS/Current\\_sugarcane\\_pricing\\_policy\\_\\_0405-Tarun\\_Sawhney.pdf](http://www.indiansugar.com/PDFS/Current_sugarcane_pricing_policy__0405-Tarun_Sawhney.pdf). (Accessed 1 June 2018)
- xix These farmers belong to OBCs and SCs like Katiyar, Gangwar, Rajputs, Dhobi, Julai, Nayi, Katiyar, Gangwar or are Muslims.

- 
- xx These farmers may belong to any three caste categories namely General, SCs and OBCs like Yadav, Jat, Gujjar, Rajputs, Brahmins, Katiyar, Gangwar, Dhobi, Julay, Nayi. Muslims in this region fall under general category.
- xxi The big farmers comprise of General and OBCs (Yadav, Jat, Gujjar) among Hindus as well as Sikhs and Muslims.
- xxii Jat, Gujjar, Yadav (OBC) and Brahmin (General)
- xxiii Angel Mohan & Bhasker Tripathi (February 20, 2018 ). More women in southern states hold land than rest of India, reveals surge. Retrieved from [https://www.business-standard.com/article/economy-policy/more-women-in-southern-states-hold-land-than-rest-of-india-reveals-survey-118022000139\\_1.html](https://www.business-standard.com/article/economy-policy/more-women-in-southern-states-hold-land-than-rest-of-india-reveals-survey-118022000139_1.html). (Last accessed on 19 July 2018).
- xxiv Press reader (Feb, 2018). PM to Inaugurate U.P. Investors' Summit. Retrieved from <https://www.pressreader.com/india/hindustan-times-lucknow/20180207/281535111442173>. (Last accessed on 19 July 2018).
- xxv Being calculated at ₹ 315 per quintal for general variety and ₹ 325 per quintal for early variety of cane
- xxvi Kolhus are local jaggery producing units set up at the village level who buy sugarcane from farmers.
- xxvii This has been corroborated and verified from one of the leaders of Bhartiya Kisan Sangh
- xxviii ISMA. Acts and Rules Relating to Sugar Industry [Amendments Incorporated Till October, 2017] State Acts pertaining to Sugarcane and Sugar
- xxix Harish Damodaran (May, 2018). How far will aid for sugar go? Retrieved from <https://indianexpress.com/article/explained/sugarcane-farmers-arrears-sugar-cess-sugar-mills-modi-government-5165984/>. (Last accessed on 19 July 2018).
- xxx Dilip Kumar Jha. (April 2018). India's sugarcane arrears swell to Rs 160 billion in March [https://www.business-standard.com/article/markets/india-s-cane-arrears-jump-by-10-in-march-at-rs-160-170-billion-118040300818\\_1.html](https://www.business-standard.com/article/markets/india-s-cane-arrears-jump-by-10-in-march-at-rs-160-170-billion-118040300818_1.html). Last seen on: 3rd June, 2018
- xxxi Outlook Web Bureau (June 2018). After Kairana defeat Centre Likely to announce 7000 Cr. package for sugarcane farmers. Retrieved from <https://www.outlookindia.com/website/story/government-to-support-sugarcane-farmers-with-over-rs-8000-crore-package/312305>. (Last accessed on 22 July 2018).
- xxxii Fair Labour Association (2017). Task and risk mapping of sugarcane production in India,
- xxxiii Labour Law Reporter. Retrieved from <https://www.labourlawreporter.com/minimum-wages-uttar-pradesh/>. (Last accessed on 22 July 2018).
- xxxiv Fair Labour Association (2017). Task and risk mapping of sugarcane production in India,
- xxxv This was narrated by the farmer who had employed the mentioned boy. The study team also met with the boy but he did not share his experience in such details due to fear of his employer. However, the farmer, his employer, was not hesitant to share this information.
- xxxvi The Bonded Labour System (Abolition) Act, 1976. [https://www.childlineindia.org.in/CP-CR-Downloads/Bonded%20Labour%20System%20\(Abolition\)%20Act%201976%20and%20Rules.pdf](https://www.childlineindia.org.in/CP-CR-Downloads/Bonded%20Labour%20System%20(Abolition)%20Act%201976%20and%20Rules.pdf). (Accessed 15 July 2017)
- xxxvii The identity of the worker could not be verified
- xxxviii Issue brief- Labour rights and agricultural productivity. Retrieved from <http://www.landesa.org/wp-content/uploads/Landesia-issue-brief-on-land-rights-and-agricultural-productivity.pdf>. (Accessed 15 July 2017)
- xxxix Chapter 8. Status of grossly polluting industries (GPI). National Mission for Clean Ganga. Retrieved from <https://nmcg.nic.in/pdf/pollution%20assessment.pdf>. (Accessed 15 July 2017)
- xl Chapter 8. Status of grossly polluting industries (GPI). National Mission for Clean Ganga. Retrieved from <https://nmcg.nic.in/pdf/pollution%20assessment.pdf>. (Accessed 15 July 2017)



## Oxfam India Discussion Papers

Oxfam India Discussion Papers are written to contribute to public debate and to invite feedback on development and humanitarian policy issues. They are 'work in progress' documents, and do not necessarily constitute final publications or reflect Oxfam India policy positions. The views and recommendations expressed are those of the author and not necessarily those of Oxfam India.

This paper was written by Shankhamala Sen, ASK with inputs from Namit Agarwal and Pooja Adhikari (Oxfam India). Oxfam India acknowledges the assistance of Aqueel Khan, Ranu Bhogal, Nand Kishor Singh, Binod Kumar Sinha, Caroline Andridge, Diya Dutta, Julie Thekkudan, Emma Fawcett and Itishree Sahoo in its production.

For more information, or to comment on this report, email Namit Agarwal:  
[namit@oxfamindia.org](mailto:namit@oxfamindia.org)

© Oxfam India October 2018

This publication is copyright but the text may be used free of charge for the purposes of advocacy, campaigning, education, and research, provided that the source is acknowledged in full. The copyright holder requests that all such use be registered with them for impact assessment purposes. For copying in any other circumstances, or for re-use in other publications, or for translation or adaptation, permission must be secured and a fee may be charged. Email [policyandpractice@oxfam.org.uk](mailto:policyandpractice@oxfam.org.uk)

The information in this publication is correct at the time of going to press.

Published by Oxfam India in October 2018.

Oxfam India, Shriram Bharatiya Kala Kendra, 4th and 5th Floor, 1 Copernicus Marg, New Delhi 110001, India.

## OXFAM INDIA

Oxfam India, a fully independent Indian organization, is a member of an international confederation of 20 organisations. The Oxfams are right based Organisations, which fight poverty and injustice by linking grass root interventions to local, national and global policy developments.

[www.oxfamindia.org](http://www.oxfamindia.org)



ऑक्सफैम इंडिया  
**OXFAM**  
India