RVO-WISH Project
(Wage Improvements in Seeds Hybrids)

Child Labour and minimum wages baseline and risk assessment study

BASF
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ARISA

syngenta

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CHAPTER I INTRODUCTION

The issue of child labour and non-payment of minimum wages in the production of hybrid vegetable seeds in India received considerable attention in recent years. Various industry reports from Fair Labor Association (FLA)[1] and Arisa[2] indicate that the seed production sector in India faces several critical and systemic issues related to human and labour rights. Current wages in the sector are often lower than the region's statutory minimum wage, and although child labour has been greatly reduced in the past few years, it remains an ongoing challenge.

Indian law completely prohibits employment of children below 14 years in all the activities and employment of children in the age group of 15-18 years in hazardous work[3]. Indian labour laws also require the payment of minimum wages to workers[4]. Despite the legal requirements, child labour and payment below minimum wages has long been a serious issue in the hybrid seed production.

In the Indian seed sector, many international and Indian companies are active. BASF and Syngenta have a strong presence in India, Syngenta since 1987 and BASF since 1995. Both were among the first international companies to publicly pledge to having zero tolerance for child labour, starting in the early 2000s. The companies have been successful in lowering the risk of child labour in their seed supply chains. Internal Management Systems, trainings, advocacy, stakeholder engagement, due diligence, monitoring, and advancements in establishing compliance at the farm level have all been used to accomplish this.

Since 2015, both companies have been addressing the non-payment of minimum legal wages. In the last decade, Syngenta has adopted multiple approaches – outreach activities, capacity enhancement, awareness campaign, and stakeholder engagement and a robust monitoring and remediation system[5]. In collaboration with Fair Labor Association it has implemented a pilot programme to ensure minimum wage compliance in selected locations

[1] https://www.fairlabor.org/reports/syngenta-india/

[2] Sowing Hope, Child labour and non-payment of minimum wages in hybrid cotton seed and vegetable seed sector in India, 2020, https://arisa.nl/wp-content/uploads/SowingHope.pdf

[3] The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986. As per this act child is defined as one who is below 14 years. 15-18 age groups are defined as Adolescents. https://www.indiacode.nic.in/handle/123456789/1848?sam_handle=123456789/1362#:~:text=India%20Code%3A%20Child%20and%20Adolescent,Prohibition%20and%20Regulation)%20Act%2C%201986&text=Long%20Title%3A,connected%20therewith%20or%20incidental%20thereto. The United Nations Convention on the Rights of the Child (UNCRC) defines child as, "A human being below the age of 18 years. For the purpose of this report we have used the definition of `child` as mentioned in UNCRC.

[4] The Code on Wages Act 2019 https://www.indiacode.nic.in/handle/123456789/15793?view_type=browse&sam_handle=123456789/1362 .

[5] Syngenta started to address the problem of child labour, minimum wages and overall working conditions in its seeds supply chain in a proactive and comprehensive way in 2004 in India through its Fair Labour Program (FLP) and a global partnership with the Fair Labor Association (FLA). Syngenta ended its partnership with FLA in 2021

and crops[6]. Syngenta made improvements in procurement practices and IMS, strengthened grassroots bonds with business partners and raised awareness, strategic engagement with government departments[7]. BASF has been working on ensuring human rights in seed sourcing, implementing multiple approaches through its responsible sourcing strategy, including awareness building on code of conduct, systematic audits and monitoring of seed suppliers and integrating social initiatives on education and livelihoods for small landholders.

Both Syngenta and BASF are part of a multi-stakeholder group called ECHO (Enabling Child and Human Rights with Seed Organisations) in India, which aims to promote decent work standards in the seed supply chain. Recognizing the decent work challenges such as child labour and minimum wage compliance in the hybrid seed industry, ECHO envisions to advocate the need for effective solutions and to establish/facilitate common standards across seed industries to address concerned social compliances. ECHO members include representatives from national and international seed companies, NGOs and research organizations.

Despite all the efforts, child labour and non-payment of minimum wages are still issues in the hybrid vegetable seed sector in India. Therefore, in 2021, BASF, Syngenta, and Arisa joined hands in a multistakeholder collaboration called *Wage Improvements in Seed Hybrids* (WISH), to strive for minimum wage compliance and address child labour in the vegetable seed sector in India.

Objectives of the baseline survey

The four-year WISH project consists of two phases: In the first phase, WISH will conduct a baseline survey. This baseline survey is intended to capture the current status of child labour and minimum wage issues in the seed production locations where BASF and Syngenta are active, and to develop indicators to measure the future project results. In the second phase, WISH will implement strategies that address the root causes of gaps in the minimum wages and child labour regulations in the vegetable seeds sector.

This report is the result of the first phase. The field data as well as the cost of production data have been collected and analysed by Glocal Research and MV Foundation, two India-based organisations, with support from Arisa.

The survey is not confined to only Syngenta and BASF farms; it includes information from different companies operating in the survey locations.

<u>The main objectives of the baseline survey are:</u>

[6] Seeds of change: a pilot project to address wage improvement in India's seed sector, Fair Labor Association, https://www.fairlabor.org/projects/seeds-of-change/

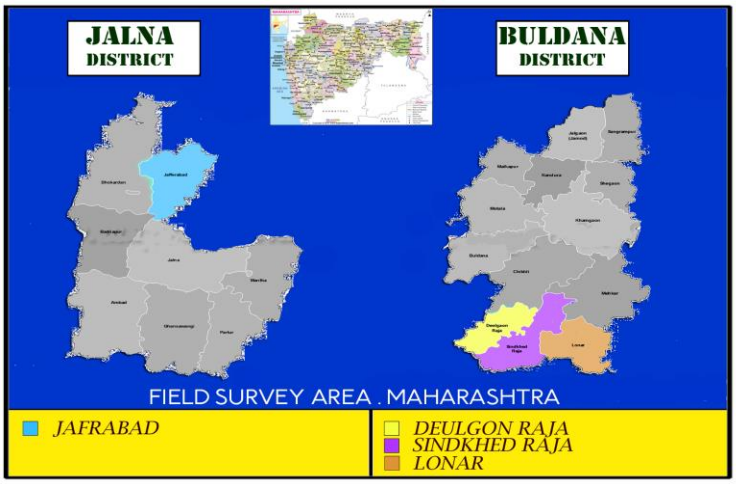
[7] https://www.syngenta.com/en/company/media/syngenta-news/year/2020/syngenta-partners-fair-labor-association-improve-wages-indias

- To examine the current nature and magnitude of child labour and its underlying causes in vegetable seed production in selected districts in Karnataka and Maharashtra where both Syngenta and BASF are active;
- To understand the mechanisms around payment of workers, root causes of non-payment of minimum wages and the price setting mechanism;
- To have baseline indicators against which future project results can be measured.

CHAPTER II RESEARCH METHODOLOGY

Survey location

Both BASF and Syngenta produce around 85% of their vegetable seed volumes in India in the states Karnataka and Maharashtra, in around 570 villages. Hence, these two states were selected for the baseline research. In Karnataka, the district Koppal, and in Maharashtra, the districts Buldana and Jalna were selected.



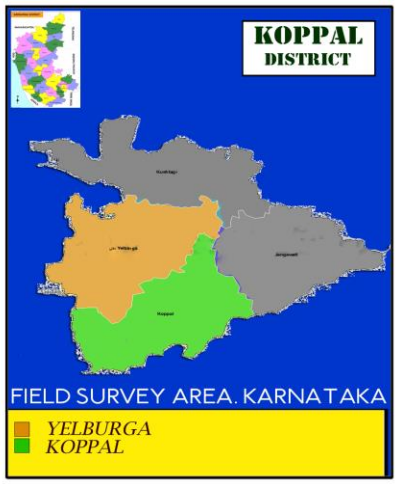


Figure 1: Survey location map

The companies selected locations and villages where both companies are operating to have a greater leverage. Both in Karnataka and Maharashtra, 14 villages were identified for the baseline survey, 28 villages in total. In the annex 1 there is an overview of the sample villages covered in the survey. The total population in the three districts is around 6 million inhabitants, of which nearly 80% lives in rural areas. Compared to other districts, Koppal is one of the most backward districts in Karnataka, but also at national level. Literacy rates are low, and around 30% of the population belongs to the Scheduled Caste or Scheduled Tribe communities, compared to 16-22% in the surveyed districts in Maharashtra.[8] See annex 2 for general demographic data on the surveyed districts.

The baseline survey was conducted between November 2021 and June 2022. The research was comprised of two main parts: a) child labour survey and b) study on wages, procurement prices and cost of production data to assess the minimum wage situation.

Child labour survey

To establish the extent of child labour, MV Foundation conducted a survey among all households in the 28 selected villages, 4,800 households in total. A more detailed survey was done with 4,199 households who have one or more children in the age group of 6-18 years. The total number of children covered in the survey is 6920 (table 2). The household survey format contained details on age, gender, social status (caste), school-going status of the children, and for working children, the nature of work they are doing, the reasons for school dropout, etc.

Table 1: Number of households with children between 6 – 18 years per state and total number of children

Category/respondents	Karnataka	Maharashtra	Total
Number of households with children 6-18 years	2,486	1,713	4,199
Total children (6-18 years) covered	4,617	2,303	6,920

In addition to the data collected from 4,199 households, in-depth interviews and focus group discussions (FGD) were carried out with children, parents, community leaders, teachers and Anganwadi workers[9]. The sample sizes used in these additional data collections are mentioned in table 2.

Minimum wage study

For the study on minimum wages, general information was collected from seed farmers, commercial farmers, workers, seed organisers, seed company representatives, community leaders, government officials, labour contractors, village elected representatives, NGOs and trade union members. The primary data collection process used various techniques to collect the relevant data: surveys, semi-structured interviews and individual interviews.

[8] Source: Census data 2011

[9] Anganwadi is a government sponsored child-care and mother-care development programmes in India at village level. It caters to children in the 0-6 age group.

The table below shows the sample sizes used for the data collection.

Table 2: Sample size for the primary data collection

Category/respondents	Karnataka	Maharashtra	Total
Location/District	**Koppal**	**Buldana and Jalna**	
Sample villages	14	14	28
Households	2,486	1,713	4,199
Seed Farmer interviews[10]	80	80	160
Commercial farmer interviews	20	20	40
Seed worker interviews [11]	160	160	320
Commercial Agricultural workers	40	40	80
Seed organizers	5	3	8
Worker group leaders	13	8	21
Village Elected representatives	14	12	26
Labour suppliers/auto drivers	8	5	13
School teachers/Headmaster	20	17	37
Anganwadi teachers	16	14	30
FGDs with children	7	6	13
Government officials at district/block level (education, labour, child protection)	7	3	10
NGOs/ trade union representatives	5	4	9
Seed industry /multi stakeholder initiative representatives[12]	6		

The data related to worker wages was gathered from seed farmers and farm workers working for 10 seed companies - four Indian and six multinational companies. Some variations were observed between farmer and worker testimonies on the data related to wages paid to workers in seed production farms. Farmers reported higher wages paid than the workers. For the purpose of analysis in these cases, the data reported by workers was taken into consideration. The wage data from workers was collected through individual

[10] 60 farmers from BASF and Syngenta, 20 farmers from other companies, in each state
[11] 120 workers from BASF and Syngenta, 40 working for other companies, in each state
[12] These stakeholders work at national level, so no numbers per state

interviews and FGDs with 360 farm workers (320 seed workers and 40 commercial agriculture workers), conducted outside the farm at their residential locality without their employers present.

From the 160 seed farmers involved in the survey, a sample of 100 seed farmers (50 farmers in each state) were asked to provide information on their cost of production, yield and income. To capture trends, the analysis covered three years of data from 2019-20, 2020-21 and 2021-22 for three crops: hot pepper, tomato and watermelon. One main variety was covered for each crop.

Furthermore, for the individual companies, BASF and Syngenta, the company procurement policy and methodology used for Cost of Production (CoP) and procurement price calculation were reviewed. Field records maintained by each company at farms which contain labour-use data were also examined. Official data from company records was cross-verified with field-level records and farmer and worker testimonies. Keeping the sensitivity of CoP and price-related information, the information gathered from one company was not shared with the other company and is therefore not included in detail in this report. The findings were shared and discussed with individual company staff separately.

None of the other companies included in the survey have formally shared any CoP data with the research team. Nevertheless, for the labour cost calculation the research team was able to collect key data through informal interviews with staff from the other seed companies. This made it possible to analyse their CoP methodology in a more general way. The CoP data collected from farmers from other companies confined to methodology used for labour cost estimates and broad estimates of other cost items. The data collected from individual companies is anonymised to maintain confidentiality. Variations were also observed in CoP estimates of different cost items between the data reported by farmers and data shared by companies. In this case, the information from farmers was leading for the analysis.

Importance of seed production in the area

Vegetable seed production is the major source of livelihood for a significant part of the population in the sample villages. From the 4,800 families, approximately 1,500 (31%) are involved with vegetable seed production of different crops for several seed companies (table 3). All major national and international seed companies have production facilities in the survey area. Multinational companies include Syngenta, BASF, Bayer, Limagrain, HM Clause, UPL-Advanta and Sakata. National companies include Mahyco and Nuziveedu, among others.

Location	Number of seed farmers (approximate)	Main crops grown	Important seed companies
Karnataka	730	tomato, hot pepper, watermelon, bitter guard, okra, cucumber	BASF, Bayer, Syngenta, HM Clause, UPL-Advanta, Sakata, Namdhari, Rasi, Nuziveedu, Patil, Ankur, Mahyco
Maharashtra	770	tomato, hot pepper, sweet pepper, okra, watermelon, brinjal, bitter guard, corn cucumber, sunflower	BASF, Bayer, Syngenta, UPL-Advanta, Kalash, VNR, East West Seeds, Ankur, Mahyco, Rasi, Anantha, Lakshmi, United Genetics and Enza Zaden
Total	1500		

Source: Baseline survey data 2021-2022.

Seed production activities in the 28 sample villages are providing employment to roughly 12,000 people; which around 30% is family labour and the remaining is hired labour. In both states, an important part of the labour force working in seed production comes from surrounding villages at 5 – 25 km distance from the farms. In Karnataka, this involves 50% of the labour force; 60% in Maharashtra[13].

[13] Source: baseline survey 2021-2022

CHAPTER III FINDINGS AND ANALYSIS ON CHILD LABOUR

Key findings from the baseline study to understand the nature and magnitude of child labour and underlying causes for it are presented in this chapter. The first section presents the number of school-going and non-school-going children, access to school facilities, and the educational infrastructures in the sample villages. The second section presents the magnitude and profile of the working children, and in the last section conclusions are drawn and root causes of child labour are identified.

Various studies have highlighted the link between child labour and education. School plays a crucial role in keeping children out of child labour. Any work which interferes with school attendance of children is defined as child labour according to the International Labour Organisation (ILO). Children not attending school or children at risk of dropping out from school can easily be drawn into work and are more vulnerable to exploitation.

Under the Right to Education Act, 2009, the Indian government guarantees free and compulsory education for all the children in the age group of 6-14 years. The Child and Adolescent Labour (Prohibition and Regulation) Act, 1986, completely prohibits the employment of children under the age of 14 in all activities and prohibits employment of adolescents in the 15-18 age groups for hazardous work. This act also imposes restrictions on the hours of work to six hours a day for adolescents[14]. Although seed production is not classified under hazardous work, specific tasks like pesticide application and handling heavy machinery are[15].

Child labour is also related to family income and minimum wages. Although poverty is a factor contributing to child labour, it is often not the decisive factor in pushing children in to work. Research shows that children's wages contribute only marginally to the family's income. Child labour also negatively affects adults' wages, thus creating even more poverty. '*Child labour is most prevalent where adults cannot access their rights to decent work'* (ILO, 2018). Providing formal, quality education and improving labour conditions, including better wages for parents, is essential.

Education infrastructure and access to schools

All the sample villages have access to government primary schools up to 5th class (aka grade) within their village or within the radius of 1km. Nearly 50% of the villages (14 villages) have schools only up to 5th class, and in the other 50% of the villages, schools offer education up to 7th class. Access to 8th to 10th class is limited to only 5 sample villages. To access 8th to 10th class education, children in the other villages must travel up to 10-12 km.

[14] As per the act for adolescents the period of work for day is restricted to 6 hours inclusive of interval for rest. To quote the act ` the period of work of adolescent shall be so arranged that inclusive of his interval for rest, and it shall not be spread over more than six hours, including the time spent in waiting for work on any day`.
[15] As per the act following operations in vegetable seed production are considered as hazardous works- mixing and spraying of chemical pesticides and fertilizers, seed extraction particularly watermelon which involves chemical treatment, handling of heavy machinery and tools like tractor ploughing etc.,

This is an important barrier for adolescent children to continue their education, especially for girls, as they are generally not allowed to travel alone.

In this section, we present the findings on school and non-school-going children between 6-18 years age in the sample villages. It is observed that a considerable number of labourers from neighbouring villages commute daily to work in sample villages. The baseline survey does not cover children that work in the sample villages but do not live there. It would be interesting to conduct further research on family background and school-going status of the children of these labourers from neighbouring villages.

Age and gender details

The total number of children in the sample villages is 6,920, which 70% is in the 6-14 age group and 30% in the 15-18 age group. In table 6, gender-specific information on the number of children is presented for each state. Girls account for 45% of the total children, while 55% are boys, with a slight difference between Karnataka and Maharashtra.

Table 6: Age and gender details of 6-18-year-old children in the sample villages, per state

Location	6-14 years			15-18 years			Total 6-18 years		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Karnataka	1,730	1,483	3,213	749	655	1,404	2,479	2,138	4,617
%	54%	46%	100%	53%	47 %	100%	54%	46%	100%
Maharashtra	934	722	1,656	392	255	647	1,326	977	2,303
%	56%	44%	100%	61%	39 %	100%	58%	42%	100%
Total	2,664	2,205	4,869	1,141	910	2,051	3,805	3,115	6920
%	55%	45%	100%	56%	44 %	100%	55%	45%	100%

Source: Baseline survey data 2021-22

School-going and non-school-going children

The children that were surveyed are grouped into three categories:

1) school-going
2) non-school-going or school dropouts
3) irregular school-going or potential school dropouts

The category of non-school-going children includes those who have dropped out from school in the middle of their education and those who have never been to school at all. The children that attend school irregularly are the ones who do not attend school every day and generally try to combine both school and work. They are at risk of completely dropping out from school[16]. Table 5 presents numbers in the 28 sample villages for each of the age categories, presented per state.

[16] If a child is absent for school continuously for at least one week it is considered as `irregular or potential dropout`.

Table 5: Particulars of school-going, non-school-going and potential school-dropout children, per state

	6-14 years			15-18 years			
	Boys	Girls	Total	Boys	Girls	Total	Total
Total Children	1,730	1,483	3,213	749	655	1,404	4,617
School-going	1,541	1,241	2,782	508	351	859	3,641
%	**89.1 %**	**83.7 %**	**86.6 %**	**67.8 %**	**53.6 %**	**61.2 %**	**78.9 %**
Non-school-going (dropouts)	57	60	117	151	152	303	420
%	**3.3%**	**4.0%**	**3.6%**	**20.2 %**	**23.2 %**	**21.6 %**	**9.1%**
Irregulars (potential school dropouts)	132	182	314	90	152	242	556
%	**7.6%**	**12.3 %**	**9.8%**	**12.0 %**	**23.2 %**	**17.2 %**	**12.0 %**
Total Children	934	722	1,656	392	255	647	2,303
School-going	888	661	1,549	336	197	533	2,082
%	**95.1 %**	**91.6 %**	**93.5 %**	**85.7 %**	**77.3 %**	**82.4 %**	**90.4 %**
Non-school-going (dropouts)	19	21	40	28	18	46	86
%	**2.0%**	**2.9%**	**2.4%**	**7.1%**	**7.1%**	**7.1%**	**3.7%**
Irregulars (potential school dropouts)	27	40	67	28	40	68	135
%	**2.9%**	**5.5%**	**4.0%**	**7.1%**	**15.7 %**	**10.5 %**	**5.9%**

Source: Baseline survey 2021-22

School-going

The results of the survey show that most of the children in the sample villages go to school: almost 83% of all children in both states. This percentage is higher for boys and girls between 6-14 years old (89%) than for the 15-18 age group (68%). The proportion of children going to school is higher in Maharashtra than in Karnataka.

The gender breakup shows that in both the states more boys than girls attend school. For the 6-14 age group, 91.2% of the boys go to school and 86.3% of the girls. In the age group between 15-18 years, the difference becomes bigger: 74.0% of the boys go to school versus 60.2% of the girls. The difference is bigger in Karnataka than in Maharashtra.

Non-school-going children

The survey identified a total of 506 non-school-going children, which means 7.3% of all children, which 49.5% are boys and 50.5% are girls. Here we see big differences between the two states: non-school-going children account for 9.1% of the total children in 6-18 years in Karnataka whereas this number is 3.7% in Maharashtra. The school dropout rate is higher among the 15- 18 age group: 21.6% in Karnataka and 7.1% in Maharashtra.

Irregular to school or potential school dropouts

If a child is irregular to school and absent for a substantial period of time, they face an increased risk of completely dropping out from school and joining the workforce. In each village, there is a significant number of school-going children who fall into this category. The survey showed that across all children, 10.0% are irregular at school, with a higher percentage for Karnataka and a lower percentage in Maharashtra. There is also a gender difference in irregular school-going children: 60% are girls and 40% boys. In the 15-18 age group, the number is higher than for the 6-14 age group.

During the focus group discussions with children, schoolteachers and Anganwadi workers, it became clear that children who are frequently irregular in going to school due to their involvement primarily in farm activities are therefore at the risk of discontinuing school attendance. School absenteeism is more observed during peak agricultural season, particularly seed cross-pollination activity. During this season there is a scarcity of labour, and it also provides an opportunity for poor families to work and save money for lean season, as agricultural activity is seasonal in nature. This is pushing the school-going children of poor families to temporarily drop out from school to join the workforce.

When the figures of dropout children and potential dropout children are combined, this shows quite a concerning picture, especially in Karnataka. In the sample villages of Karnataka, 21.1% of the children are irregularly going to school or not going to school at all. In Maharashtra, this is 9.2%. In the 15-18 age group, one out of three children in Karnataka is not in school or irregularly going to school. Among girls, this amounts to almost 50%. The percentages in Maharashtra are far lower; around 18% of children between 15-18 years. For younger children, the percentages in both states are lower.

Nature and profile of child labour

In the household survey, non-going children and irregular-going children were asked about the work they are doing. The data presented in this section is based on the household survey and not from observations in the field. The data shows that more than 95% of non-school-going children in the sample villages are actively involved in some kind of work. Table 6 presents the details of the primary activity in which the non-school-going children and potential dropout children are involved.

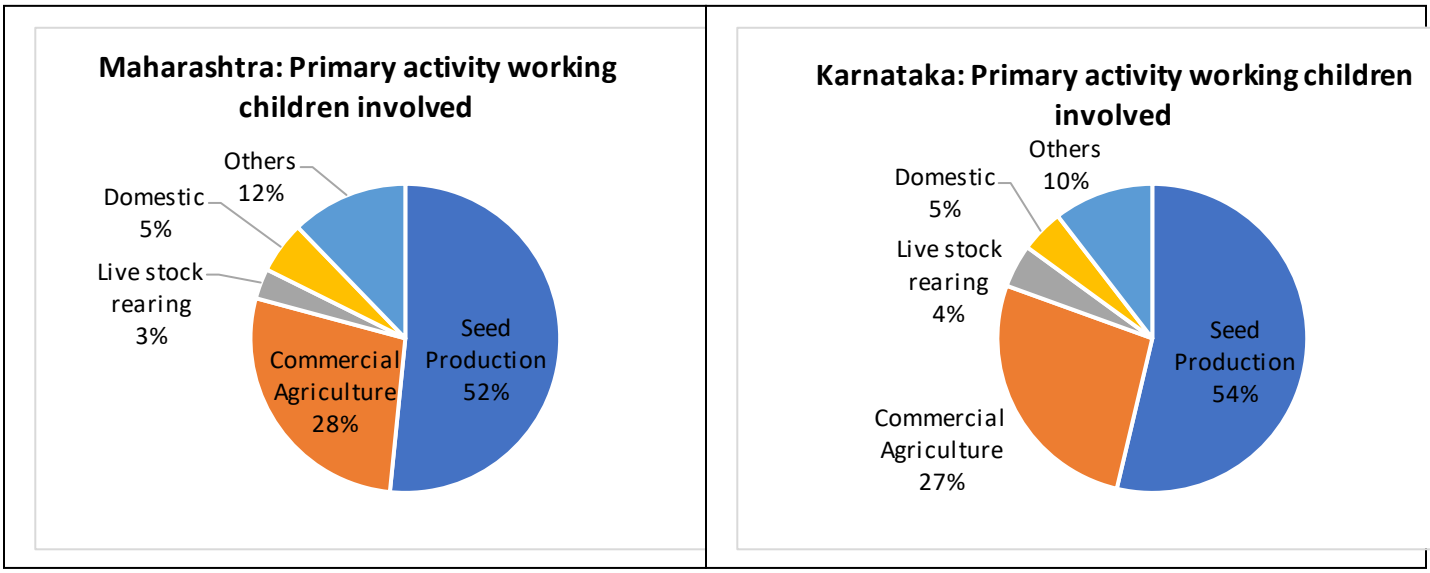
Table 6: Non-school-going and potential dropout children by primary activity

Activity	Maharashtra				Karnataka				
	6-14 years		15-18 years		6-14 years		15-18 years		
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Grand total
Seed production	17 (36.9 %)	32 (52.5%)	24 (42.9%)	41 (70.7%)	84 (44.4%)	146 (60.3%)	89 (36.9%)	205 (67.4%)	638 (53.3%)
Commercial agriculture	16 (34.8 %)	17 (27.9%)	18 (32.1%)	10 (17.2%)	53 (28.1%)	55 (22.7%)	91 (37.8%)	63 (20.7%)	323 (26.9%)
Livestock rearing	4 (8.7%)	0 (0.0%)	3 (5.4%)	0 (0.0%)	20 (10.6%)	5 (2.1%)	19 (7.9%)	0 (0.0%)	51 (4.3%)
Domestic work	1 (2.2%)	6 (9.8%)	3 (5.4%)	2 (3.5%)	4 (2.1%)	17 (7.0%)	0 (0.0%)	23 (7.6%)	56 (4.7%)
Others[17]	8 (17.4 %)	6 (9.8%)	8 (14.2%)	5 (8.6%)	28 (14.8%)	19 (7.9%)	42 (17.4%)	13 (4.3%)	129 (10.8%)
Total	46	61	56	58	189	242	241	304	1197 (100%)

Source: Baseline survey data, 2021-22,

In a more graphic way, these figures give the following overview:

Figure 2: Primary activity working children are involved in



The information from the survey shows that 53.3% of non-school-going children and children at risk of dropping out are engaged in hybrid vegetable seed production as their primary activity. Girls outnumber boys in seed production work. Out of 638 total children involved in

[17] Other activities include construction, petty business, driver etc.

seed production in both Karnataka and Maharashtra, 424 (66.4%) of them are girls. In seed production, cross-pollination (hybridization) is the key labour activity, which accounts for more than 70% of labour required. The employment of children is observed primarily in this activity. There is a preference among farmers for employing children for this activity[18]. During peak pollination period[19], there is a huge demand for labour, and at this time, school-going children are seen temporarily skipping school to work in this operation.

Although the respondents were asked about the specific seed company they are working for, many of them were unable to clearly identify the company name. Therefore, no clear estimates of company-wise incidence of child labour can be drawn from the baseline data.

Next to seed production, commercial agriculture is the other important activity the children are involved in both states. Overall, 27% of the children, 12.8% of the boys and 14.1% of the girls, are working in commercial agricultural activities. The main crops grown are cotton, soyabean, red gram, corn, rice and sunflower. In commercial agriculture, children are involved in sowing, weeding and harvesting operations. Livestock rearing maintenance provides supplementary income to several families in the survey location with 4.3% of children involved in this activity.

Domestic work, including sibling care in their own families, is an important activity where children, mostly girls, are engaged. Nearly 5% of the non-school-going children are involved in domestic chores such as cooking, sweeping, cleaning, fetching water, caring for animals and sibling care. Overwhelmingly, 85% in this category are girls. These children also sometimes work in agricultural fields, but most of their time is allocated for domestic work.

Children do both paid and family work. The paid work involves working for wages in other farmer fields, and family labour is one who works in their own farm without wages. Nearly half of the working children in both the states are hired labourers working for a wage. In seed production, the percentage of hired children is relatively high compared to other activities. Nearly 55% of the children in seed production work as hired labourers whereas this number is 46% in commercial crops in both the states. No paid labour is observed in domestic work and cattle rearing activities.

Socio-economic background of the families of working children

The socio-economic background of families of working children (school dropouts and potential dropouts) clearly shows that a large proportion of these children are from economically poor and socially disadvantaged communities. In both states, the percentage of children from Scheduled Caste and Scheduled Tribe communities is higher than expected according to the general composition of the population. 36% of the total working children are from Scheduled Castes and Scheduled Tribe communities (table 7), which are considered most disadvantaged communities in terms of social and economic status.

The economic status of the families clearly indicates that most of them are poor and are primarily dependent on wage labour for their livelihoods. Most of the families from SC and ST communities do not own any land and are primarily dependent on wage work. The wage

[18] Farmers hire children in preference to adults because wages paid to them are low compared to adults and children are easier to control.

[19] The peak season varies from crop to crop but the main peak period is September to November.

work in seed production provides an important source of livelihood for nearly half of the families.

Table 7: Dropout and potential dropout children (6-18 years) by caste

	Karnataka	Maharashtra	Total
OBC (Other Backward Castes)	**558 (57.1%)**	**113 (51.1%)**	**671 (56.0%)**
Scheduled Castes (SCs)	**221 (22.6%)**	**62 (28.1%)**	**283 (23.6%)**
Scheduled Tribes (STs)	**139 (14.3%)**	**9 (4.1%)**	**148 (12.4%)**
Other Castes (OCs)	**58 (5.9%)**	**37 (16.7%)**	**95 (7.9%)**
Total	**976 (100%)**	**221 (100%)**	**1,197 (100%)**

Source: Baseline survey data, 2021- 22

Influence of Covid-19 pandemic

This baseline survey in relation to child labour confirms that child labour is still prevalent in the sample villages. Although stakeholders who were interviewed for the survey confirm that there is a significant reduction in child labour numbers during the last 15 years, the Covid-19 pandemic has undone some of the progress made since the early 2000s. The pandemic and subsequent closure of schools for a long period of time had an adverse impact on child labour in the survey area. In 16% of the school dropout cases, Covid was mentioned by family members of the dropout children as the main reason for them to start working.

Root causes of child labour

Besides quantitative data from the household survey, the baseline study also interacted with different stakeholders from the community (see table 2). Through interviews and focus group discussions, different factors were discussed that influence child labour. In this section, results of the household survey are combined with the qualitative data gathered among stakeholders to come up with a list of root causes of child labour in the survey areas.

- The socio-economic background and low-caste status of the families of working children clearly indicates that most of them are poor and are primarily dependent on wage labour for their livelihoods. **Low family income** is mentioned as an important reason for children to drop out from school and start working.
- At the same time, the survey shows that the incidences of child labour are high in areas where **market wages are low**, such as in Koppal, Karnataka. Stakeholders confirm that the availability of child labour is helping employers to keep wages low for adult workers. During the peak cross-pollination period, there is a huge scarcity of labour, placing a lot of pressure on children to join the workforce.
- At the same time, the interactions with different stakeholders like community leaders, teachers, government officials, parents and employers indicate that there is a **social acceptance and tolerance towards child labour** in the community.

- There is **a market demand for child labour**. Children are perceived as a source of cheap labour and are preferred for certain labour-intensive activities like cross-pollination in hybrid seed production and harvesting activities in commercial cotton and hot pepper production. Though the wages paid are almost the same for both adults and children for many of these activities, there is a preference for children, as they are thought to be more productive than adults to do these operations and easier to control.

- **Lack of education infrastructure** and poor access to higher education is one of the contributing factors for children dropping out of school and joining the workforce. 36% of the dropout children leave school at class 7th and 8th, which indicates that inadequate school facilities forces them to leave school.

- **The enforcement of laws related to child labour and education is insufficient** and not mature enough. There are no registered cases in Maharashtra against employers engaging child labour in seed production, nor in other activities. In Karnataka, a few cases were registered in the Koppal location in 2014[1], but with very limited impact. The cases are still pending. Ultimately, the enforcement of the Right to Education Act is ineffective, which actually promotes the perpetuation of child labour practices in the study area.

- The practice of child marriages and **the low value attached to girls' education** are also important factors contributing to girls dropping out school and joining the workforce. In the study area, the practice of child marriages is more prevalent among SCs and certain OBC communities. Out of 516 cases of non-school-going children, early marriage was the prime reason for 24 girls dropping out from school.

- **Covid-19 pandemic and subsequent closure of schools** for a long period of time had an adverse impact on child labour in the survey location. The number of child labour cases were said to have increased during this period. In 16% of school dropout cases, Covid factor was reported as main reason by family members.

This paragraph shows that child labour is directly linked to the issue of minimum wage compliance, as higher wages will improve family income, and it will reduce the demand for child labour. As a result, families will be able to send their children to school and contribute to a better future for them.

[1] UNICEF in collaboration with local government was very active and implemented a major project during 2010-14.

CHAPTER: IVFINDINGS AND ANALYSIS ON MINIMUM WAGES

Indian law mandates payment of minimum wages to workers in different sectors, including the agriculture sector. Despite this legal requirement, studies have reported that payment of minimum wages has long been an issue in the agriculture sector in general, and hybrid seed production in particular, in India[20]. The issue of non-payment of minimum wages has not received as much attention from seed companies and other stakeholders compared to the issue of child labour. This chapter presents the main findings from the baseline survey on the current status of market wages paid to workers and underlying causes for non-compliance of payment of minimum wages.

Statutory minimum wage rates in Karnataka and Maharashtra

The Minimum Wages Act 1948 in India empowers state governments to fix and revise minimum wage rates for different agricultural activities. There is no single uniform minimum wage rate across the country. The wage rates vary from state to state, and within states, also from region to region. The number of working hours for a normal working day is eight hours, and the wage rates apply to men and women equally. The minimum wage rate mentioned is the actual amount workers are entitled to get and does not include benefits provided by the employer as part of the work, such as travel allowance, contributions to provident fund, etc.

The Code on Wages, 2019[21], provides for universal minimum wage and floor wage across employments in the organized and unorganized sector, and the existing provision, under the Minimum Wages Act, 1948, to restrict applicability of minimum wages to scheduled employments, has been dispensed with under the Code. The Code mandates the Central Government to fix floor wage applicable across the Central and State sphere. The Code stipulates that the minimum rates of wages fixed by the appropriate Government shall not be less than the floor wage. The said provisions of the Code on Wages, 2019, has come into force from October 1, 2022[22].

For the purpose of fixing minimum wages for agricultural work, Karnataka treats the entire state as a single zone. A common wage rate is fixed for all agricultural activities. In Karnataka, the minimum daily wage during the research phase was INR 441.28.

In Maharashtra for the purpose of fixing minimum wages, the state is divided into four zones and zone-specific wage rates are fixed. The minimum wage rates for 2021-22 prescribed by the Maharashtra governments under the study for daily casual workers for agricultural activities varied between INR 255 and INR 280 depending upon the zones. The seed

[20] For example the Arisa report Sowing Hope from June 2020 https://arisa.nl/wp-content/uploads/SowingHope.pdf
[21] https://labour.gov.in/sites/default/files/Labour_Code_Eng.pdf
[22] https://zeenews.india.com/personal-finance/labour-ministrys-big-update-on-new-wage-code-12-hours-work-week-changes-in-leaves-reduced-in-hand-salary-higher-pf-for-employees-know-when-will-new-labour-codes-be-implemented-2487129.html

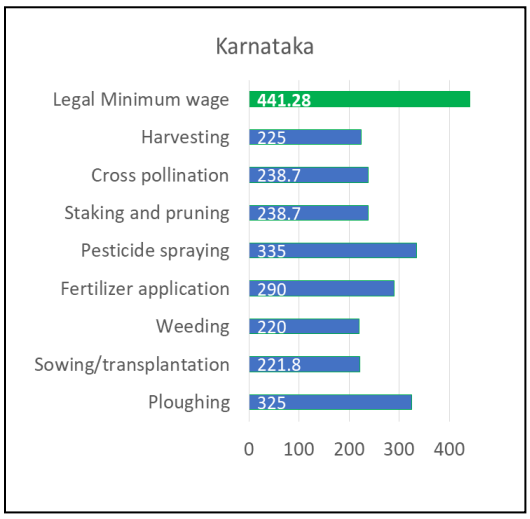
production areas and sample villages covered in the baseline survey primarily fall under Zone III and a small portion in Zone II.

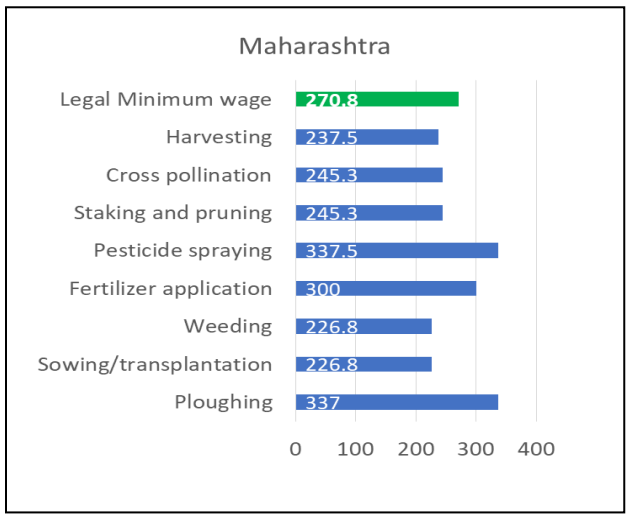
Gap between prevailing market wages and statutory minimum wages

Table 8 presents a comparison of prevailing market wage rates for different activities in seed production and commercial crops with statutory minimum wages in the study locations for the 2021-22 crop season. The wages mentioned are average rates calculated from 360 respondents. Except ploughing and pesticide application, the normal working day is close to 8 hours for all the operations, which follows the guidelines of Minimum Wage legislation. For ploughing and pesticide application, the normal working day is 4-5 hours. The wage rates mentioned for these activities are for 4-5 hours.

Table 8: Comparison of prevailing average market wages with statutory minimum wages for daily wage agricultural workers in 2021-22 (amount in INR), per state

Activity	KARNATAKA		MAHARASHTRA	
	Seed Production	Commercial Crops	Seed Production	Commercial Crops
Ploughing	325	325	337	337
Sowing/transplantation	221.8	212.5	226.8	220
Weeding	220	208.5	226.8	220
Fertilizer application	290	275	300	285.5
Pesticide spraying	335	335	337.5	337.5
Staking and pruning	238.7	NA	245.3	NA
Cross pollination	238.7	NA	245.3	NA
Harvesting	225	220	237.5	225
Legal minimum wage for daily wage worker (8 hours day)	**INR 441.28**		**Zone –II INR 270.8** **Zone III- INR 260.8**	





Gender division of labour and wage gap

No gender discrimination in wage payment was reported when males and females performed the exact same activity. However, discrimination in work allocation is clearly visible. The average wages in both states are substantially higher for tasks like ploughing, spraying pesticides and applying fertilisers, which are mostly done by men as compared to sowing, weeding, harvesting and cross-pollination, which are primarily done by female workers. The data shows that compared to commercial crops the prevailing market wages paid to workers are marginally higher in seed production in both states.

The division of work based on gender has earning implications for men and women engaged in various production activities. Compared to ploughing and pesticide application, the wage rates for weeding, cross-pollination and harvesting are 20 to 30% lower. The normal working day for ploughing and pesticide application is 4-5 hours, whereas it is 8 hours for other work. Therefore, on average women workers earn less compared to men workers in vegetable seed farms.

The prevailing wages are below the legal minimum wages for all seed operation activities in Karnataka. In Maharashtra, the prevailing wages are only below statutory wages for activities like sowing/transplanting, weeding, cross-pollination and harvesting. As described, these activities are primarily done by female workers.

Wage rates for cross-pollination

The average wage rates for cross-pollination, which is a key activity in seed production, are below the statutory minimum wages in both states. Cross-pollination workers received INR 238.7 against INR 441.29 minimum daily wage in Karnataka and INR 245.3 against INR 260- 270 minimum wage in Maharashtra, depending on the zone (table 8).

For the cross-pollination activity, the gap between legal wage and market wage is 45% (INR 202.5) in Karnataka and 6% - 9% (INR 15-25) in Maharashtra, depending on the zone. In the sample villages, a substantial number of seed production workers (50% in Karnataka and 60% in Maharashtra) are from outside the villages that commute daily to their workplace. For outside workers, farmers are facilitating transportation. For hiring outside workers, farmers are depending upon labour contractors who charge commission for arranging labour. An important group of contractors are the riksha drivers who organise a group of female workers for cross-pollination work and provide them transport. Often the driver is a relative of one or more of the female workers. The farmers in both locations are incurring INR 50-75 per person per day towards providing free transportation to workers, which is paid to the drivers directly. As explained above, the free transport cannot be seen as part of the wages paid to the workers.

The wages data analysed covered 320 seed farm workers working for 10 seed companies - four Indian and six multinational companies. No significant difference was observed in wages received by workers between multinational and Indian seed companies. Wages are slightly higher than the market average rates in the areas where workers have awareness about legal minimum wages. This was observed in the case of farm workers who are working for companies which are implementing programmes for minimum wage compliance.

Wage setting mechanism

Despite the existence of a legal wage rate set by the government, the local wage-setting mechanisms determine the prevailing market wages. The market wages in the study locations are currently determined by multiple factors, which include labour supply and demand, bargaining capacity of the workers, farmers' ability to pay, and price-setting by the seed companies. There is no clear wage-setting mechanism. The farmers seem to fix the wages together with the contractors, in a more informal way. They also depend on the seed companies and their price-setting. Not all companies specify their price in the beginning of the season, some only do that after the harvest.

The bargaining power of the workers in the area is limited, and there is not much organisation of workers. In the sample villages, some small women's groups exist, focusing on women's credit, not so much on wages. Some workers choose the farmers on aspects such as advance payments and transport and food provision. Others just depend on the offer being done to them by contractors.

Cost of cultivation, gross and net income from seed production

To understand the farmers' ability to pay minimum wages, cost of production, yields and net income data were gathered from 100 sample farmers in Karnataka and Maharashtra producing for 10 different seed companies. The average cost of production was calculated over three years for three different crops. Labour costs are estimated with prevailing market wages. Labour costs include both hired and family labour. For this calculation, the family labour cost is imputed with market wages.

Although the outcome of this calculation does not provide insight in the CoP of farmers who produce for a specific company, it provides insight into the labour costs of farmers and to what extent the payment of minimum wages will affect their cost of production. Profit margins depend on the agreement with the seed companies and the yield obtained.

Table 9: Three years (2019-2021) average cost of production, gross and net income from seed production (in INR)

	Tomato		Hot pepper		Watermelon	
	KA[23]	MH[24]	KA	MH	KA	MH
Total Cost of production						
A) Labour cost	84,300	91,500	158,500	164,000	61,000	64,500
B) Non labour costs (inputs, machinery, land rental value etc)	89,700	97,500	63,200	60,500	60,500	59,300
Total Cost (A+B)	174,000	189,000	221,700	224,500	121,500	123,800
Total Income	184,500	218,800	257,000	261,700	136,600	134,200

[23] KA refers to Karnataka
[24] MH refers to Maharashtra

The analysis of net income data for the last three years (2019 to 2021) for farmers producing tomato, hot pepper and watermelon crops shows wide fluctuations in the yields and net incomes over the years.

The labour costs in table 9 relate to the prevailing market wages. For Karnataka, it was calculated above (table 8) that the gap between the market wage and legal minimum wage is close to 45%. If farmers would pay the minimum wage to their workers, their labour costs would increase by 85%, and it would increase the total production costs by nearly 40% in the case of tomato and watermelon and 60% in the case of hot pepper. For example in the tomato crop, the labour cost per prevailing market wages is INR 84,300. An 85% increase in the labour cost would mean a total labour cost of INR 155,955. If we add these additional labour costs to the total cost of production, this will increase to INR 245,655 (41% increase). For farmers to have a margin, it would mean that procurement prices would need to increase.

Main reasons for non-compliance of minimum wage payment

Both the quantitative and qualitative data collection on minimum wage shows that there are many reasons why minimum wages are not paid in the study locations. In this section, some of the main reasons are described.

Lack of awareness about the law

Except on farms where companies are implementing minimum wage pilot programmes, there is a complete lack of awareness about minimum wage legislation among workers and farmers. More than 90% of the workers and farmers at non-Syngenta and non-BASF farms showed no awareness about minimum wage rates applicable to their area. Lack of awareness is observed even among seed organisers who are mainly working with local companies. Out of 10 seed organisers interviewed, only five have awareness about minimum wage law. 92% of farmers and 66% of workers in BASF farms and 73% of farmers and 59% workers in Syngenta farms showed awareness about legal minimum wage.

Lack of organisation of workers

Workers' awareness about minimum wages is important, but mere awareness itself will not lead into demanding the legal minimum wages because of the patron-client relationship between farmers and workers. In the sample villages, the organisation of workers is low, therefore limiting their bargaining power.

Especially in Karnataka, the gap between prevailing market wage and legal minimum wage is big

The analysis of production costs and net income details during the baseline survey shows that when farmers want to pay the minimum wage to their workers, their cost of production increases considerably.

Company procurement price estimates missing minimum wage calculations

The review of company CoP (cost of production) and procurement policies for the 10 companies[25] shows that, except one, none of them are considering minimum wages while calculating CoP and procurement prices. Only prevailing market wages are considered in CoP calculation. Companies also omitted certain key cost items like land rental value and interest on working capital in the CoP estimates. The labour days estimation calculations also showed wide variations between company estimates and farmers calculations. This means there are gaps in company CoP calculations, and they underestimate the actual costs incurred by farmers. This makes it difficult for farmers to pay minimum wages.

Farmers resistance

The seed production area accounts for only 6% of the total cultivated area in both states. In the remaining area, farmers grow commercial crops. 88% of the sample farmers interviewed during the baseline survey are involved in cultivation of both seed and commercial crops. The workers engaged in seed production also work in commercial crops, so implementing minimum wages in seed production alone is posing challenges to farmers, as this will lead to demands on wages for commercial crops as well. The main reason for farmers' hesitation to implement minimum wages is that it is going to increase their cost of production significantly. The farmers' argument is that if they pay minimum wages to workers for their time spent in one company's seed plot, the same will be demanded by the workers for their time spent on other company plots and commercial crops owned by them. As the workers are the same, it is very challenging for them to implement differential wages for the same work in different company plots.

Delay in notification and absence of enforcement by regulatory bodies on payment of legal wages

Each year in India, the minimum legal wages are revised. A notice is issued by the state government on the revised rates[26]. There is a significant delay from the state government to notify the updated wages for a financial year. Furthermore, there is lack of coordination and cooperation from the regulatory bodies, and by the time the wage rate is revised and communicated, the production season is reaching its tail-end. This makes the suppliers non-compliant on wages for that season as the wage rates are negotiated far in advance of the season.

The enforcement of laws in the informal sectors like agriculture is very weak in India. As per the official data, no cases of minimum wage violations in agriculture were filed during the last five years in the three districts covered in Karnataka and Maharashtra. None of the sample farmers in either state recalled any inspections by labour department officials on wages paid to workers.

[25] Access to company CoP data is challenging. Only two companies have formally shared the data and information from other companies was collected from informal discussions with company staff.

[26] E.g. Karnataka wage rate for fiscal year April 1 2020 – March 31, 2021. https://paycheck.in/salary/minimumwages/31024-karnataka/31025-agriculture-and-related-works

CHAPTER IV EXAMPLES OF INITIATIVES TO TACKLE CHILD LABOUR AND WAGES ISSUES

Issues related to decent work, particularly the issue of child labour and non-payment of minimum wages in hybrid seed production in India, have received attention in recent years, and various interventions were made by different stakeholders to address these issues. The companies of the WISH project have adopted multiple approaches, as well as other seed companies. In this chapter, some examples are described and lessons drawn from these initiatives.

Seed industry initiatives

The issue of child labour has received attention from the seed industry, particularly multinational companies including Syngenta, BASF, Bayer, East West Seeds, Limagrain and UPL-Advanta. Since the early 2000s, Syngenta, Bayer and BASF Vegetable Seeds were among the first multinationals in the Indian seed industry to demonstrate commitment towards zero tolerance for child labour. These companies have achieved success in reducing the child labour risk to a significantly lower level (less than 1 percent of workforce as per company data and less than 5% as per external studies[27]) in their seeds supply chain. This has been achieved through adopting clear and strict policies against child labour, introducing and strengthening Internal Management Systems, internal and external monitoring, trainings, awareness and motivation campaigns and stakeholder engagement, and making improvements in achieving compliance at the farm level.

The issue of non-payment of minimum wages has not received as much attention as the issue of child labour. Though several companies have taken measures to ensure minimum wages to labourers working on research farms and processing units directly controlled by them, similar efforts have not been made to ensure minimum wages to labourers working on their suppliers' seed farms. It is one of the important agenda items in all multi-stakeholder consultations organised by the ECHO forum since 2015.

Since 2015, a few companies, including Syngenta and BASF, have started pilot projects in selected areas and crops addressing the non-payment of minimum legal wages. These projects have focused on awareness building of workers and seed suppliers, stakeholder engagement, and a management information system to track the payments made by the suppliers to hired workers.

Lack of awareness about minimum wages among seed organisers, growers, workers and company field staff has been recognised by seed companies, and steps have been taken to create more awareness among the different actors. The need for documentation of workers'

[27] For details see the report ` Sowing Hope: Child labour and non-payment of minimum wages in hybrid cottonseed and vegetable seed production in India`.

attendance and wage payments has been recognised, and steps are initiated to motivate the growers to maintain records. The gap amount between prevailing market wages and statutory minimum wages was estimated, and this additional amount was either separately paid or included in procurement prices paid to farmers to enable them to pay minimum wages to their workers.

The steps initiated by seed companies, including BASF and Syngenta, helped to create some awareness about minimum wages, particularly among organisers and growers. It also helped to improve the documentation of wage records at farms. However, these measures have not fully yielded expected results of ensuring payment of minimum wages to the workers, especially in the areas where there is a significant gap between prevailing market and statutory minimum wages.

The interaction with farmers who have implemented the minimum wage pilot projects indicates that there was a lot of hesitation and unpreparedness on the side of the farmers to implement these projects. The main reason for farmers' hesitation to implement minimum wages is that it is going to increase their cost of production significantly. Farmers say that unless other companies also come forward to compensate the differential amount in prevailing market and legal minimum wages, it is very difficult for them to pay minimum wages for their workers.

Key Learnings

The above-mentioned initiatives have achieved important steps in relation to the eradication of child labour and the non-payment of minimum wages. Nevertheless, this baseline survey shows that both issues have not been solved in seed production in the sample villages in Karnataka and Maharashtra. More effort is needed to address both child labour and the non-payment of minimum wages. From the initiatives already taken by the seed companies, some important lessons can be drawn:

Regarding the issue of child labour, the baseline survey shows that an **area-based approach** is key to address child labour. The children do not work in only one sector, they work across different activities, so to really eradicate child labour, it is important to implement a comprehensive approach, involving all stakeholders in the community, including farmers and companies. In this way, root causes such as social norms on child labour and girls' education can be addressed. At the same time, the linkage between child labour and family income also becomes clearer and easier to address.

A key learning from these pilots is that while the efforts of individual companies can make a small difference, for sustainable progress this challenge must be **addressed at an industry level** with collaboration from other stakeholders.

There is a need to **align the efforts of the seeds industry, government, and other stakeholders** to tackle the issue of non-payment of legal wages and its potential impact on child labour.

Only **cooperation between companies** can set an example, and adoption of best practices can reduce the risks and set conditions for open dialogue for mitigating this industry-wide problem.

Annex 1 List of sample villages covered in baseline survey by state

KARNATAKA			MAHARASHTRA		
Village Name	**Taluk/block**	**District**	**Village Name**	**Taluk/block**	**District**
Chikka bommanala	Koppal	Koppal	Ganeshpur	Jafrabad	Jalna
Ganganal	Koppal	Koppal	Pokhari	Jafrabad	Jalna
Hire bommanala	Koppal	Koppal	Shirala	Jafrabad	Jalna
Balutagi tanda	Yelburga	Koppal	Nalvihira	Jafrabad	Jalna
Hire vaddarakal	Yelburga	Koppal	Khinipawar	Deulgaon Raja	Buldhana
Kolihala	Yelburga	Koppal	Palskhed zatla	Deulgaon Raja	Buldhana
Madlur	Yelburga	Koppal	Giroli Budruk	Deulgaon Raja	Buldhana
Markat	Yelburga	Koppal	Matmal	Lonar	Buldhana
Nelogal	Yelburga	Koppal	Rajini	Lonar	Buldhana
Talikere	Yelburga	Koppal	Saraswathi	Lonar	Buldhana
Vanagerei	Yelburga	Koppal	Shindi	Lonar	Buldhana
Yapaladinni	Yelburga	Koppal	Somthana	Lonar	Buldhana
Choudapur	Yelburga	Koppal	Veni	Lonar	Buldhana
Murudi	Yelburga	Koppal	Palaskhed Chakka	Shindikhed Raja	Buldhana

Annex 2 Demographic profile of the districts covered in the study

	Maharashtra (MH)		Karnataka (KA)
	Buldhana	Jalna	Koppal
Total Population	**2,586,258**	**1,959,046**	**1,389,920**
% Male population	51.7%	51.6%	50.3%
% Female population	48.3%	48.4%	49.7%
% of SC population	18.2%	13.9%	18.6%
% ST Population	4.8%	2.2%	11.8%
Literacy rate	83.4%	71.4%	68.1%
Male literacy rate	90.5%	81.5.%	78.5%
Female literacy rate	75.8.4%	61.0%	57.5%
% cultivators to main workers	34.05%	47.2%	25.0%
% agricultural labourers to main workers	40%	30.9%	41.7%

Source: Census data 2011.