



Seeds of child labour

SIGNS OF HOPE

**Child and Adult Labour
in Cottonseed
Production in India**

Davuluri Venkateswarlu, June 2010

Study jointly commissioned by

International Labour Rights Forum (ILRF)

India Committee of the Netherlands (ICN)

Stop Child Labour – School is the Best Place to Work

Contents

SECTION-I

INTRODUCTION

- Background
- Objectives of the study
- Methodology and sample

SECTION-II

TRENDS IN EMPLOYMENT OF CHILD LABOUR, WAGES AND WORKING CONDITIONS:

FIELD SURVEY FINDINGS

- Andhra Pradesh
- Gujarat
- Karnataka
- Tamil Nadu

SECTION-III

ESTIMATES OF TOTAL NUMBER OF CHILDREN EMPLOYED IN COTTONSEED FARMS IN DIFFERENT STATES IN INDIA

LIST OF TABLES

TABLE 1: Company wide distribution of sample farms surveyed in different states

TABLE 2: Trends in work force composition in cottonseed farms in Andhra Pradesh

TABLE 3: Trends in work force composition in cottonseed farms in Gujarat

TABLE 4: Trends in work force composition in cottonseed farms in Karnataka

TABLE 5: Trends in work force composition in cottonseed farms in Tamil Nadu

TABLE 6: Estimates of total number of children employed in hybrid cottonseed farms
in different states in India for 2003-04, 2006-07 and 2009-10

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SECTION-I

INTRODUCTION

Background

The principal aim of the present study is to examine recent trends in the employment of child labour in hybrid cottonseed production in India. Though the use of child labour is prevalent in many industries in India, no other industry in the last decade has received as much widespread attention as the cottonseed industry. The use of child labour in the production of hybrid cottonseeds in India has been widely reported and documented. The production process and employment conditions of this industry have been subject to close scrutiny due to the presence of large multinational companies.

Hybrid cottonseed production is highly labour-intensive and children, particularly girls, are engaged in most of its operations. No other industry in India has such a high proportion of child labour in its work force. In cottonseed production, cross-pollination (hybridization) is the main activity which requires 90% of the total labour used in seed cultivation. Children are the main source of labour for this activity. They are employed on a long-term contract basis through advances and loans extended to their parents by local seed producers, who have agreements with the large national and multinational seed companies. Children are made to work long hours and are paid less than market and official minimum wages. They are also exposed to the poisonous pesticides which are used in high quantities. Most of the children working in cottonseed farms belong to poor families from Scheduled Castes (SCs) – also called Dalits, Scheduled Tribes (STs) – also called Adivasi, and Backward Castes (BCs).

Since 1998, a number of studies have been conducted on the nature and magnitude of child labour, the working conditions of children, the reasons for large-scale employment of children in this sector and the role of largescale national and multinational seed companies (MNCs) contributing to this problem.¹ 'Child bondage continues in Indian cotton supply chain', published in 2007, is the latest report available on the overall situation of child labour in hybrid cottonseed production in different states of India. According to this report, in the 2006–07 cultivation season nearly 416,460 children under the age of 18, the majority of them (54%) younger than 14, were employed in cottonseed farms in the states of Gujarat, Andhra

¹ Important studies on the issue of child labour in hybrid cottonseed production in India include: 1) Venkateswarlu, Davuluri (2001) Seeds of Bondage: Female Child Bonded Labour in Hybrid Cottonseed Production in Andhra Pradesh, published by Business and Community Foundation and Plan International (India Chapter) New Delhi (for full text see www.indianet.nl/sob.html), 2) Venkateswarlu, Davuluri. and L. da Corta (2001) Transformations in Age and Gender of Unfree Workers on Hybrid Cottonseed Farms in Andhra Pradesh, *Journal of Peasant Studies*, Vol. 28, No. 3, pp 1–36., 3) Ramamurthy, Priti (2000) The Cotton Commodity Chain, Women, Work and Agency in India and Japan: The Case for Feminist Agro-Food Systems Research, *World Development* 28(3): 551–578, 4) Venkateswarlu, Davuluri (2003), Child Labour and Trans-National Seed Companies in Hybrid Cottonseed Production in Andhra Pradesh, study commissioned by the India Committee of the Netherlands (for full text see www.indianet.nl/cotseed.html), 5) Venkateswarlu, Davuluri (2007), Child bondage continues in Indian cotton supply chain, study commissioned by India Committee of the Netherlands, ILRF, DWHH, OECD Watch (full report available at www.indianet.nl/pdf/childbondagecotton.pdf), 6) Ashok Khandelwal, Katiar Sudhir and Madan Vashnav (2008) Child Labour in Cottonseed Production: A case study of cottonseed farms in North Gujarat, *Dhakhina Rajasthan Majdur Union* (for full text see www.indianet.nl/pdf/drmureport.pdf).

Pradesh, Tamil Nadu and Karnataka. These regions account for nearly 92% of the total production area in the country. Both MNCs and Indian companies subcontract the cultivation of hybrid cottonseeds to farmers, who in turn employ children to work in their fields.

Since 2007, many developments have occurred which have a bearing on the nature and magnitude of child labour in the cottonseed industry in India. Thanks to the efforts of local and international NGOs, the government, international organizations like ILO, UNICEF, UNDP, media and social investors, a great deal of awareness has been created about the problem of child labour in this industry. The intensified pressure from international NGOs and social investors like Norges Bank have put pressure on the MNCs Monsanto and Bayer to continue their efforts to address the problem of child labour in their cottonseed supply chains. The government of India, particularly the National Commission for Protection of Child Rights (NCPCR), has taken serious note of the issue and initiated several measures to address the problem. Local NGOs and unions, particularly in Andhra Pradesh and Gujarat (MV Foundation in AP and DRMU in Gujarat), have also intensified their campaigns. In 2008 UNICEF and Save the Children Fund, with the support from IKEA, initiated special projects to address the problem of child labour in cottonseed growing areas in AP, Tamil Nadu, Gujarat and Maharashtra.

Several new developments within the cottonseed industry have had significant implications for the incidence of child labour on cottonseed farms in India. These developments include:

- **Increase in the production area** – Since 2007, the total area under hybrid cottonseed production increased in India by 13% (from 60,100 acres in 2006–07 to 68,000 acres in 2009–10) due to globally growing demand for hybrid seeds. For example, the state of Gujarat has witnessed a significant rise 58% in the area under cottonseed production (from 24,000 acres in 2006–07 to 38,000 in 2009–10). The area directly controlled by MNCs and large Indian companies has also increased. Monsanto, Bayer and Advanta, the most important MNCs in cottonseed, increased by 194% during 2006–07 and 2009–10 (from 3,400 acres in 2006–07 to 10,000 acres in 2009–10). Large companies are slowly increasing their control over the seed industry by expanding their production area and also by acquiring smaller companies.
- **Relocation and expansion of production to new areas** – Seed companies are relocating and expanding their production to new areas situated in remote pockets where cheap labour is more readily available and there is less public attention about child labour. In Gujarat and Tamil Nadu, all the new production locations are situated in remote tribal pockets (in Gujarat Bodoli area in Vadodara district, Bayad and Khedbrahma areas in Sabarkantha district; in Tamil Nadu Karumandarai Hills in Salem district and Sitteri area in Dharmapuri district). In these new locations, most of the seed farmers are marginal landholders (of which more than 90% are tribal people) who mostly depend upon their families for labour. The average size of a cottonseed plot in these locations is less than 0.50 acres.
- **Shifting production from large commercial farms to small family based farms** – This is a new trend which began a few years ago. A rise in production costs (mainly labour costs) and stagnant produce prices have resulted in a reduction in profit margins. Consequently, large commercial farmers, who mainly depend upon hired labour, are slowly either withdrawing from cottonseed production or opting for share-cropping arrangements with labouring families. In recent years companies have witnessed demands for higher procurement prices from large seed growers in Andhra Pradesh and Gujarat. This rise in the production cost is one of the reasons seed companies have shifted production to new

locations and prefer to contract with small farmers. The small farmers are less organised and cannot bargain as effectively for higher prices. There have also been implications on the work force composition in the cottonseed sector since small farmers tend to depend more on their own family labour, including their children.

- **Changes in the work force composition** – The expansion and relocation of production into remote tribal locations and the decline in the average size of production units had significant implications for the composition of work force. In the new production locations, most of the seed growers are small and marginal farmers who often depend on their own family's labour. In these locations it is observed that the proportion of family labour, both adults and children, is relatively high compared to traditional seed production areas.

In the context of the developments mentioned above, the present study makes an attempt to assess the current situation of child labour and adult labour conditions in cottonseed farms in India.

Objectives of the study

The main objective of the present study is to examine trends in the employment of child labour on hybrid cottonseed farms in four Indian states, namely Andhra Pradesh, Tamil Nadu, Karnataka and Gujarat, through an analysis of recent developments that have a bearing on the nature and magnitude of child labour and the working conditions of labourers in the cottonseed industry.

Methodology and sample

The field survey for the present study was conducted between July 2009 and January 2010. The study is mainly based on the analysis of primary data collected through field visits to 400 sample cottonseed farms in 76 villages producing seed for both MNCs and major Indian seed companies in Andhra Pradesh, Karnataka, Gujarat and Tamil Nadu. These four states account for nearly 90% of the total cottonseed production area in India. Out of 400 farms surveyed, 120 are in Andhra Pradesh, 140 in Gujarat, 60 in Tamil Nadu and 80 in Karnataka. Table 1 presents a company wide break up of sample farms included in the survey in different states. Of the total 400 farms surveyed 121 (30.2%) were producing seeds for MNCs or their joint venture companies and the remaining 279 for local Indian companies. The names of MNCs included in the survey are Monsanto and its Indian partner Mahyco (Monsanto holds 26% share in Mahyco), Proagro (owned by Bayer), Advanta (owned by United Phosphorus Ltd) and Pioneer Hybrid International (owned by DuPont). The names of important local Indian seed companies included in the survey are Nuziveedu Seeds, J.K. Seeds, Ankur Seeds, Raasi Seeds, Tulasi Seeds, Vikram, Nath Seeds and Vibha Seeds.

In Andhra Pradesh the survey was conducted in the Mahaboobnagar (Gadwal, Maldakal, Izaa, Dharur, Gattu mandals) and Kurnool (Uyyalawada, Sanjamal, Dornipadu, Alur, Emmiganur, Kodumur, Nandavaram, Kowthalam mandals) districts. In Tamil Nadu the survey was conducted in the Attur taluk of Salem district which is the main production centre for cottonseed in Tamil Nadu. In Gujarat the survey was conducted in the Sabarkantha (Idar Bayad and Khedbrahama taluks), Mehasan (Vijapur taluk) and Baroda (Badoli taluk) districts and in Karnataka in Gadag (Ron taluk), Koppal (Yelberga taluk) and Kolar (Chitamani taluk) districts.

TABLE 1
COMPANY WIDE DISTRIBUTION OF SAMPLE FARMS SURVEYED IN DIFFERENT STATES

Name of company	Andhra Pradesh	Gujarat	Karnataka	Tamil Nadu	Total farms
Multinational companies (MNCs)					
Monsanto	20	16	12	4	52
Proagro (Bayer)	8			13	21
Mahyco (joint venture company of Monsanto)		35			35
Advanta (UnitedP Phosphorus Ltd)			8		8
Pioneer Hybrid International (DuPont)	5				5
Indian companies					
Nuziveedu	26	32	8	12	78
Raasi	14		10	36	60
Ankur	12				12
JK Seeds	8		5		13
Tulasi	14	8			22
Vikram		10			10
Vibha		27	8		35
Nath Bio	6			4	10
Other small companies	7	12	16	4	39
Total	120	140	80	60	400

Due to the recent sensitivity of the child labour issue in some locations, the research team had to cope with several obstacles during the fieldwork. There was extreme nervousness and reluctance to admit the existence of child labour in the study farms. Therefore, the investigators were discouraged from asking seed growers direct questions about child labour on their farms. The investigators who went to these villages concealed their real identity and the motive behind their queries. They were introduced as researchers conducting a study on problems and needs of the seed growers. They also accepted help from local community volunteers while visiting the farms.

Information on the age and gender composition of workers, wage rates and working conditions were gathered through separate interviews and discussions with labourers and seed farmers and through field observations. The details about the working conditions (wages, working hours etc) and the magnitude of child labour were collected for all the sample farms. Due to time and resource constraints, however, similar details on adult labour were collected for only 25% of the sample farms.

In order to determine which workers were children, researchers followed the method of observation adopted by an ILO-CORT study in the carpet industry in 1998. The field investigators were trained to distinguish the children from adults through observation. Field investigators were asked to record their observations into three categories: 1) definitely children, 2) definitely adults and 3) probably/doubtful children. The category of 'probably children' was used when an investigator could not decide whether a worker was a child or not. Age determination was found difficult in 220 cases out of a total 3755 workers (73 cases out of 1428 in Andhra Pradesh, 47 cases out of 698 in Karnataka, 38 cases out of 442 in Tamil Nadu and 62 cases out of 1187 in Gujarat) and such cases were recorded separately as age doubtful cases (probably children). While estimating the total number of children below 14 years it was decided to treat 50% of numbers in the 'probably children' labour category as children below 14 years with the assumption that the chances of a probably child being a child are 50%.

No official data is available on the total extent of the area under cottonseed production and the area covered by individual seed companies. Instead, this information was gathered through discussions with representatives of seed companies and key informants in seed industry circles. The total number of child labourers in cottonseed production for the 2009-10 crop season is estimated for each state separately on the basis of per acre average requirement of labour and the proportion of child labour to total work force in the sampled farms by extrapolating the sample proportions to the total area under cottonseed production in different states.



² Anker, Richard, Sandhya Barge, S. Rajagopal & M.P. Joseph (Eds.) (1998), Economics of Child Labour in Hazardous Industries of India, Centre for Operation Research and Training, Baroda.

SECTION-II

TRENDS IN EMPLOYMENT OF CHILD LABOUR, WAGES AND WORKING CONDITIONS: FIELD SURVEY FINDINGS

The next section presents the most important findings from the field surveys carried out during the 2009–10 crop season in different states. In order to understand the trends in the employment of children and wages and working conditions of labourers on hybrid cottonseed production in different states, the results of the present study were compared with previous studies carried out by the same author in 2003–04 and 2006–07.

Andhra Pradesh

Compared to other states in India, the issue of child labour in cottonseed farms in Andhra Pradesh has received much wider attention due to active campaigns against child labour in the state by the local children's rights groups. Moreover since 2000, the government, NGOs, the seed industry and international agencies like ILO-IPEC, UNICEF and UNDP have undertaken a number of initiatives to address the problem. The latest report on the overall situation of child labour in cottonseed production in Andhra Pradesh was published in 2007. According to this report, the total number of children (below 14 years) employed in cottonseed production between 2006 and 2007 was estimated by the state as 70,400. In this section we present the most important findings from field surveys conducted in 2009–10 and compare these findings with previous studies conducted in 2003–04 and 2006–07.

Andhra Pradesh (AP) is referred to as the 'seed capital of India'. Even though hybrid seeds are used all over the country, hybrid seed production of various crops was for many years concentrated in AP. All the major seed companies still have their production facilities in AP. Until the 1990s, Andhra Pradesh was the largest state in India for the production of hybrid cottonseeds. However, after the introduction of BT cotton in the early 2000s the area under cottonseed production in Gujarat has rapidly increased and the state has now become the largest cottonseed-producing state in India, replacing Andhra Pradesh.

The total area under cottonseed production in AP has decreased from 16,000 acres in 2006–07 to 12,000 acres in 2009–10. Out of the remaining 12,000 acres, nearly 3600 acres (30%) were under the direct control of multinationals Monsanto, Bayer and DuPont, while the remaining area was controlled by several Indian companies. Among the Indian seed companies the major companies are Nuziveedu, Tulasi, Raasi, Krishidhan and Ankur. All these Indian companies have sublicensed BT gene from Monsanto.

In Andhra Pradesh the field survey was conducted in 24 villages, in 12 mandals, and in two districts, namely Mahaboobnagar and Kurnool where nearly 90% of the cottonseed production is concentrated. The mandals selected for the survey are Gadwal, Maldakal, Izaa, Gattu, Dharur in the Mahaboobnagar district, and Uyyalawada, Sanjamal, Dornipadu, Alur, Emmiganur, Kodumur and Kowthalam mandals in the Kurnool district. Of the total 120 sample farms selected for the survey, 70 are located in Kurnool and 50 farms are in Mahaboobnagar. Company wide break up sample farms indicates that out of 120 farms, 33 were producing seeds for MNCs (Monsanto 20, Bayer 8 and DuPont 5 farms) and the remaining 87 farms were producing seeds for Indian companies (Nuziveedu 26, Raasi 14, Tulasi 14, Ankur 12, Nath 6, JK Seeds 8 and others 7 farms).

IMPORTANT FINDINGS

DECLINE IN AVERAGE FARM SIZE

The total area covered by 120 sample farms is 162 acres and the average farm size is 1.35 acres. Compared to 2003-04, there is a decline in the average size of a cottonseed farm in 2009-10 (1.57 acres in 2003-04 to 1.35 acres in 2009-10).

WORK FORCE COMPOSITION: FAMILY VS HIRED LABOUR

In 2009-10, nearly 70% of the workers engaged in survey farms are hired labourers. Family labour accounted for 30% of the total labour force. Compared to 2003-04 and 2006-07, there is an increase in the involvement of family labour (from 20% in 2003-04, 21.8% in 2006-07 to 30% in 2009-10). In recent years cottonseed production is slowly shifting from large-scale commercial farms to small family based farms. A steep rise in production costs, mainly on account of labour charges and stagnant produce prices, has resulted in reduction in profit margins in cottonseed cultivation. Consequently, the large commercial farmers who mainly depend upon hired labour, are no longer showing any keen interest in cottonseed production. They are slowly either withdrawing from cottonseed production or opting for share cropping arrangements with agricultural labouring families. The seed companies also prefer to contract their production to small farmers, which has implications on the work force composition in the cottonseed sector. Small farmers tend to depend more on their own family's labour, including their children.

CASTE COMPOSITION OF WORK FORCE

Most of the hired workers (children as well as adults) working on cottonseed farms belong to poor families from socially backward and often discriminated communities like Dalits, officially called Scheduled Castes (SCs), as well as Adivasi, officially called Scheduled Tribes (STs) and Backward Castes (BCs). Of the 1010 hired workers in sample farms, 402 (39.8%) are Dalits, mainly from Mala and Madiga castes. Backward Castes like Kuruva, Mangali, Chakali and Golla account for 41.5% (420) of the work force while Adivasi and Muslims account for 6.1% (62) and 8.3% (84) respectively. Workers from upper castes like Reddy, Kamma, Velama and Brahmin form only a small proportion (4.2%) of the total workers. There has not been much change in the caste composition of the work force since 2003-04.

AGE AND GENDER COMPOSITION OF WORK FORCE

Table 2 details the age and gender division of workers engaged in cottonseed farms during cross-pollination activity for the years 2003-04, 2006-07 and 2009-10. The data clearly indicate that the magnitude of child labour is declining. Children (below 14 years) accounted for 57.4% of the total work force in 2003-04. This has dropped to 42.7% in 2006-07 and 29.8% in 2009-10. Though there is a significant decline in the employment of children below 14 years, a marginal increase is observed in the participation of children in the age group 15-18 years. The proportion of children in the age group 15-18 years to the total work force increased from 34.8% in 2006-07 to 39.3% in 2009-10.

In 2009-2010 more than 70% of the children labourers are girls. The proportion of girls to the total children has not changed much since 2003-04. During those years, each acre of seed production employed an average 5.9 children (below 14 years). This number has dropped to 4.4 children in 2006-07 and 2.9 children in 2009-10. Compared to 2003-04 and 2006-07, both the proportion of children (below 14 years) to the total work force and per acre employment of number of children has declined in 2009-10.

The proportion of child labour to the total work force varied between 15% to 45% in different regions of the state in 2009–10. The proportion of child labour to the total work force was found to be high in Adoni division (Emmiganur, Kodumur and Kowthalam mandals) in the Kurnool district and Gadwal division (Gattu and Izaa mandals) in the Mahaboobnagar district. The proportion of children to the total work force varied between 30 to 45% in these areas. A relatively low incidence of child labour is observed in Nandyala division particularly in Uyyalawada and Sanjamal mandals in Kurnool and in Gadwal division (mandals like Maldakal and Dharur) of the Mahaboobnagar district. The proportion of child labour to the total work force varied between 15–20% in these areas. Due to the active campaign launched against the employment of child labour in these areas, seed farmers have recently started to slowly replace child labour with adult labour.

Variations were also observed in the proportion of children to the total work force in individual farms producing seeds for different companies. Compared to Indian seed companies, the proportion of children to the total work force was found to be significantly lower on farms producing seed for MNCs. The exception is DuPont which has recently entered into the cottonseed business in India through the acquisition of a local company called 'Nandi Seeds'. The sustained grassroots work and campaigns by NGOs, like MV Foundation, in a number of districts in Andhra Pradesh was crucial. This effort was backed up by pressure generated by international NGOs, social investor groups and the media. Together this has put seed companies, particularly multinationals, under severe pressure to pay serious attention to the problem.

Since 2005–06 the multinationals Monsanto and Bayer have been implementing an action plan to address the problem of child labour on the farms directly producing seed for their companies. This action plan includes motivation campaigns, price incentives to the growers for not employing children, disincentives like black listing of farmers who are found using child labour for future production, and separate schools to rehabilitate former child workers. These initiatives have had a positive impact such that the proportion of child labour to the total work force on the farms producing seeds for these companies has dropped from nearly 53% in 2003–04 to less than 3% in 2009–10. In the Nandyala area of Kurnool district, where Monsanto and Bayer have a substantial presence, local child rights groups, particularly MV Foundation, are also very active. The large reduction in child labour was the result of the combined efforts of these companies and civil society groups. While the supply of children into the labour market was largely reduced by the social mobilization movement spearheaded by MV Foundation, which has made very crucial efforts in mobilizing cross sections of the society, the demand for child labour by the farmers was largely controlled by the seed companies.

TABLE 2
TRENDS IN WORK FORCE COMPOSITION IN COTTONSEED FARMS IN AP

	2003-04	2006-07	2009-10
Total number of farms surveyed (area in acres)	174 (264 acres)	280 (414 acres)	120 (162 acres)
Total number of workers engaged during cross-pollination activity	2,709	4,264	1,428
Type of Labour: family vs hired			
% of family labour to total labour	20.1% (544)	21.8% (930)	29.3% (418)
% hired labour to total labour	79.9% (2,165)	78.2% (3,334)	0.7% (1,010)
Hired Labour: local vs migrant			
% of migrant labour to total hired labour		17.4% (580)	22.7% (230)
% of local labour to total hired labour		82.6% (2,754)	77.3% (880)
Age and gender composition			
% of children (below 14 years) to total workforce	57.4% (1,556)	42.7% (1,820)	29.8% (426)
% of girls to total children	75.8% (1,180)	73.6% (1,339)	70.6% (322)
% of children to total work force (15-18 age group)		34.8% (1,484)	39.3% (562)
% girls to total children (15-18 age group)		72.2% (1,072)	77.2% (434)
% of adults to total work force (above 18 years)		22.5% (960)	30.9% (440)
Average number of children (below 14 age) per acre	5.9	4.4	2.6
Average number of children (15-18 years) per acre		3.6	3.5

Note: figures in brackets are absolute numbers

LABOUR AGREEMENTS

Seasonal agreements where seed farmers pay advances/loans to labourers is a common practice across all cottonseed production locations. Cottonseed production requires an assured supply of labour for carrying out various activities, particularly cross-pollination work for which labourers are needed every day for an approximate 70-90 day stretch. As a result, the seed producers prefer to have advance agreements with labourers before starting off their seed cultivation. They employ workers on a long term contract basis by paying them advances/loans. Advances/loans are used by the employers as a means to bind the workers and curtail their freedom and mobility. Though this system of labour arrangement is still prevalent in all the cottonseed producing locations, some changes in terms and conditions in favour of workers were found in the Nandyala region where the incidence of child labour is

low due to proactive interventions. While several farmers used to charge interest on advance payments, this is now less common. Advance payment continues to be a common practice, however, in other areas where children still constitute a significant portion of work force in cottonseed farms.



WAGES AND WORKING CONDITIONS

The wage rates paid to children, as well as adult labours, in cottonseed farms are low compared to wage rates in other agricultural operations. Wage rates are fixed on both a daily and monthly wage basis. Nearly 25% of hired labour in cottonseed farms in Nandyala region of Kurnool district are seasonal migrant workers (both adults and children) who mostly come from Emmiganur and Mantralayam, the most backward areas in the same district. Migrant workers are generally hired on monthly wages and the wage amount is deducted from their advances/loans.³ In Mahaboobnagar district the average daily wage rate (for 9–10 hours of work) paid to children working on cottonseed farms during 2009–10 was Rs. 42. For adult female workers the wage rate in cottonseed work was Rs. 50, which is about 20% lower than other agricultural activities. In the Nandyala area in Kurnool district, wage rates are calculated on a monthly basis. During 2009–10 the monthly wage rate paid to child labourers varied between Rs. 2500 to 3500 (for 12 to 13 hours of work per day) depending on their age and experience. The monthly payment to adult female workers varied between Rs. 3500 and Rs. 4000. Compared to 2003–04, the wage rates paid to both children and adult workers in 2009–10 increased significantly by 70 to 100% in Mahaboobnagar and 120 to 180% in Kurnool district.

³ In most areas, employers recruit children from the same or adjacent villages by making agreements with the parents of the children directly. However, migrant children – who are brought from other areas for this work – form an important segment of the labour force in Nandyala region of Kurnool district, where seed production is highly concentrated and the availability of local labour is insufficient. To recruit migrant children, seed employers mostly depend on middlemen, who organise the labour for them. Before the season begins, the employers send middlemen to different places in search of labourers. On behalf of the employers, middlemen conclude agreements with the parents of the children. Employers also give some money to middlemen so that they can pay advances to the parents at the time of reaching the agreements. Middlemen receive commission from the employers for arranging labour.

The rural areas of Andhra Pradesh have recently witnessed an upward movement in labour wages. Apart from other factors, the National Rural Employment Guarantee (NREG) Act, introduced by the government of India in 2005, has significantly contributed to an increase in wage rates for rural workers. NREG provides a legal guarantee of 100 days of wage employment per year to every rural household whose adult members volunteer to do unskilled manual work at the minimum wage as notified for agricultural labour prescribed in the state. In Andhra Pradesh the daily minimum wage rate fixed for work under the NREG Scheme is Rs. 100.

Though there is a general increase in the wage rates for cottonseed workers in both Mahaboobnagar and Kurnool districts, compared to other areas, the increase in the adult wages is significantly higher in areas like Nandyala, which has recently witnessed a significant decline in the incidence of child labour due to proactive interventions from NGOs like MV Foundation, the local government and some seed companies.

GENDER AND CASTE DISCRIMINATION

Gender discrimination is clearly evident in the allocation of the type of work and wage rates. Furthermore, women are often offered low paying jobs and their work is treated as low value. Girls are particularly preferred for cross-pollination, weeding and harvesting operations which are labour-intensive and low paid jobs. The wage differences are substantial between cross-pollination, weeding and harvesting operations, which are largely carried out by female labourers, and ploughing and pesticide application which are almost exclusively done by men. In activities where both men and women participate, wage differences also exist. In 'joint male female' activities very subtle differences lead to very wide payment differences. For instance, in fertilizer application where women and men spread fertilizer, the only difference is that men also carry the bag of fertilizer, but men receive Rs. 50-60 more. It was reported that in recent years, particularly after the introduction of the NREG Scheme, the gap between male and female wages in the cottonseed farms has been slightly reduced.

Wage discrimination on the basis of caste and ethnicity was not reported. In Gadwal area in the Mahaboobnagar district, Dalit and Adivasi workers reported that they often face some kind of discrimination in treatment from their employers who mostly belong to upper castes. "Some employers treat us (Dalit workers) differently from upper caste workers. They do not respect us. We are often abused for paltry issues of coming late for work for few minutes or unable to complete the work within time. When we go to their houses to collect our wages we were asked to do some domestic works like bringing water, cleaning cattle shed etc.", says Sujatha, a Dalit worker in Alur village in Mahaboobnagar.

CHILD LABOUR DEPRESSES ADULT WAGES CASE STUDY OF THE COTTONSEED SECTOR IN ANDHRA PRADESH

A RECENT STUDY BY THE AUTHOR (2010) EXAMINED THE LINK BETWEEN CHILD LABOUR AND DECENT WORK FOR ADULTS IN THE COTTONSEED SECTOR IN ANDHRA PRADESH. IT CLEARLY SHOWS THAT THE WITHDRAWAL OF CHILD LABOUR FROM THE WORK FORCE HAD A POSITIVE IMPACT ON WAGES AND WORKING CONDITIONS OF ADULT LABOURERS. THE REMOVAL OF CHILDREN FROM THE WORK FORCE LED TO THE CREATION OF ADDITIONAL EMPLOYMENT OPPORTUNITIES FOR ADULT LABOUR AND INCREASED THEIR DEMAND. THIS HAS IN TURN LED TO IMPROVED BARGAINING POWER OF ADULT LABOUR FOR BETTER WAGES AND WORKING CONDITIONS.

The study was conducted in four sample villages in Andhra Pradesh: two villages which have recently undergone significant interventions and witnessed a drastic decline in child labour, and two villages with minimal or no interventions where the incidence child labour continues to be high. It was found that the changes in the incidence of child labour have a direct bearing on the wages of adults. In the intervention villages it was found that average daily wages for adults in cottonseed farms increased by 151.9% between 2005 and 2009, and though there was also an increase in the non/less intervention villages, it was a mere 51% during the same period.

The impact of the withdrawal of children from the seed farms has not just been limited to this sector alone. The effects are observed on the wages in other agriculture activities, including activities which were using little child labour, where wages are higher compared with wages in cottonseed. In intervention villages the wage rates

increased by 131% for female adult workers and 105% for male adult workers between 2005 and 2009. The increment in the wages in non/less intervention villages was 51% and 56% for males and females respectively during this period. In intervention villages the gap between wage rates for cottonseed and other agricultural operations has been reduced because of scarcity of labour caused by the withdrawal of children from the labour force. In non-intervention villages the wage gap between cotton and non-cottonseed activities still persists. The persistence of child labour on cottonseed farms is the key factor for low adult wages in cottonseed cultivation in non/less intervention villages.

The withdrawal of children from the labour market and the increased bargaining power of adult labour for better wages and working conditions had other positive effects in intervention villages. The wage advances of the workers have increased and instead of paying an interest of 12% a year, they now get loans which are free of interests. The workers are now also asking for additional facilities at the work site.

The substantial rise in the wage rates and improved working conditions for adult workers in the areas where children are withdrawn from the labour market, compared to areas where children constitute significant numbers in the workforce, clearly supports the argument that the presence of child labour reduces the bargaining power of adult workers and suppresses their wages.

See also the report 'Let children learn and parents earn' by FNV Mondiaal: www.indianet.nl/pdf/letparentsearn.pdf

Gujarat

Gujarat has the distinction of producing the world's first hybrid cottonseed `H4` for commercial production in 1970 and since then it has been one of the most important states in the production and marketing of hybrid cottonseeds in India. Since 2000, Gujarat has witnessed a significant rise in the cottonseed production area and has become the number one cottonseed producing state in India. Of the total area of 70,000 acres under cottonseed production in India in 2009-10, Gujarat state accounts for 38,000 acres (54.3%). This is a 58% increase since 2006-07 (from 24,000 acres in 2006-07 to 38,000 acres in 2009-10). Due to the growing demand for hybrid seeds within and outside the country, seed companies are expanding their production volumes and areas under seed production. They have chosen Gujarat to expand their production area because the productivity and quality of seed produced here is relatively better compared to other states. The availability of cheap migrant labour to work on cottonseed farms is also another reason for seed companies to expand their production area in Gujarat.

Traditionally the cottonseed production in the state is concentrated in the northern part of Gujarat in four districts, namely Sabarkantha, Banaskantha, Mehasan and Gandhinagar. In recent years cottonseed production has spread to new districts like Vadodara and Panchmahal. Seed companies are relocating and expanding their production to new areas situated in remote pockets in the state where cheap labour is available. All the new production locations in Gujarat are situated in remote tribal pockets (Bodoli area in Vadodara district, Panchmahal district which is predominantly a tribal pocket, and Bayad, Shamlaji and Khedbrahma areas in Sabarkantha district). In these new locations most of the seed farmers are marginal landholders. More than 90% of them are tribal people who mostly depend upon their family labour.

All major seed companies have their production facilities in Gujarat. Nearly 50% of the production area in the state is controlled by three large companies, namely Mahyco, Nuziveedu and Vibha. The other important companies having a production base in Gujarat are Monsanto, Ajit, Ankur, Bio Seeds, Tulasi and Vikram.

An important feature of cottonseed production in Gujarat is that more than two out of three labourers engaged in cottonseed production are seasonal migrants (adults as well as children) from tribal communities in the southern part of Rajasthan (Dungapur, Udaipur and Khervad) and from tribal areas in Gujarat (Panchmahal, Sabarkantha and Santrapur). More than 50% of the migrant labourers are from Rajasthan. Most of the labourers coming to Gujarat for cottonseed work are from the Udaipur and Dungapur districts in Rajasthan, which are perennially drought prone and known for large-scale migration of labourers to other areas in search of wage work.

A 2007 study carried out by the author of the present study estimates the total number of children (below 14 years) employed in cottonseed farms in Gujarat in 2006-07 as 85,340 out of which 62% are girls. Among hired labour, migrant labour – both adults and children – accounts for 82.5%. During the last three years the seasonal migration of workers to traditional cottonseed producing areas has come down due to relocation and the expansion of production area to new locations. These new production locations are in areas where labourers used to migrate for cottonseed work in traditional seed production areas.

In Gujarat the field survey was conducted in 140 sample farms in 28 villages located in the following districts: Sabarkantha (Idar Bayad and Khedbrahama taluks), Mehasan (Vijapur

taluk) and Vadodara (Badoli taluk). Out of 140 farms surveyed, 35 were producing seed for Mahyco, 32 for Nuziveedu, 27 for Vibha, 16 for Monsanto, 10 for Vikram and the remaining 22 for other small companies.

IMPORTANT FINDINGS

DECLINE IN AVERAGE FARM SIZE

The total area covered by 140 sample farms is 122 acres and the average farm size is 0.87 acres. Compared to 2003-04 and 2006-07, there is a significant decline in the average size of cottonseed farms in 2009-10 (from 1.9 acres in 2003-04, 1.7 acres in 2006-07 to 0.87 acres in 2009-10). The main reason for this decline is the recent trend of shifting production from large commercial farms to small family farms. As already mentioned in the introduction, due to reduction in profit margins on account of a rise in production costs (mainly labour costs) and stagnant prices for the produce, the large commercial farmers who mainly depend upon hired labour are slowly withdrawing from cottonseed production. Conversely, small land owners, who mostly depend on their own family labour, are entering into cottonseed production. In the new cottonseed production locations in the state most of the farmers are small landowners who do not have enough resources for large-scale farming.

WORK FORCE COMPOSITION: FAMILY VS HIRED LABOUR

The growing trend towards relocation of production from large commercial farms to small family based farms has implications for the work force composition on cottonseed farms. The latter tend to depend more on their own family labour for their agricultural operations. Compared to 2003-04 and 2006-07, there is an increase in the involvement of family labour in 2009-10. The proportion of family labour to the total work force accounted for 13.5% in 2003-04. This has increased to 17.6% in 2008-07 and 31% in 2009-10.

HIRED LABOUR COMPOSITION: MIGRANT VS LOCAL LABOUR

A total of 1,187 workers were engaged in these farms during peak cross-pollination season in 2009-10, out of which 79% (819) were hired labour. Among hired labourers 54.3% (445) were migrant labourers belonging to mainly Adivasi communities coming from the southern part of Rajasthan (Dungapur, Udaipur and Khervad) and tribal pockets of Gujarat (Panchmahal, Sabarkantha and Santrapur). Compared to 2003-04 and 2006-07 there has been a significant decline in the proportion of migrant labour to the total hired work force. Among hired workers, migrant labour accounted for 82.5% in 2003-04 and 83.4% in 2006-07. In 2009-10 this percentage has dropped to 54.3%. One of the reasons for the decline of seasonal migrant labour on cottonseed farms is the relocation and expansion of production areas to new locations, whereas labourers used to migrate for cottonseed work in traditional seed production areas.

It has also been observed that the NREG Scheme has affected the migration of tribal workers from Rajasthan to Gujarat cottonseed farms. During the last two years the number of tribal workers migrating from Rajasthan to Gujarat has declined due to the availability of some employment under the NREG Scheme in Rajasthan. An additional factor which led to the decline of migration is the availability of cottonseed work in Rajasthan itself. Several companies have recently started shifting their production base from Gujarat to Rajasthan. In 2009-10 nearly 1500 acres of production was given by several companies to farmers in the tribal pockets of Dungapur and Udaipur districts in Rajasthan. The main reason for this shift is the availability of cheap labour in these areas.

CASTE COMPOSITION OF WORK FORCE

Caste and ethnic composition of the work force on cottonseed farms has witnessed some changes in recent years. It is observed that more Adivasi (Scheduled Tribes) and Dalits are joining in the cottonseed work force. Adivasi and Dalit workers accounted for nearly 70% of the total hired labourers in 2009-10.

AGE AND GENDER COMPOSITION OF WORK FORCE

Children in the age group of 7 to 14 years constitute 24.6% of the total work force in 2009-10. Among them 62.7% were girls. On average, 2.4 children were employed per acre of seed production. Compared to 2003-04, there has been a decline in the proportion of children (below 14 years) to the total work force and the per acre employment of children. The proportion of children to the total work force declined from 34.9% in 2003-04 to 32.7% in 2006-07 and 24.6% in 2009-10. The average number of children employed per acre dropped from 3.5 persons in 2003-04 to 3.4 persons in 2006-07 and 2.4 persons in 2009-10.

TABLE 3

TRENDS IN WORK FORCE COMPOSITION IN COTTONSEED FARMS IN GUJARAT

	2003-04	2006-07	2009-10
Total number of farms surveyed (area in acres)	20 (38 acres)	60 (104 acres)	140 (122 acres)
Total number of workers engaged during cross-pollination activity	384	1082	1187
Type of labour: family vs hired			
% of family labour to total labour	13.5% (52)	17.6% (190)	31.0% (368)
% of hired labour to total labour	86.5 % (332)	82.4% (892)	69.0% (819)
Hired Labour: local vs migrant			
% of migrant labour to total hired labour	82.5% (274)	83.4% (744)	54.3% (445)
% local labour to total hired labour	17.5% (58)	16.6% (148)	46.7% (374)
Age and gender composition			
% of children to total work force (below 14 years)	34.9% (134)	32.7% (354)	24.6% (292)
% of girls to total children	59.7% (80)	61.6% (218)	62.7% (183)
% of children to total work force (15-18 years)	31.8 % (122)	33.4% (362)	34.4% (408)
% of girls to total children (15-18 years)	62.3% (76)	56.9% (206)	62.6% (268)
% of adults to total work force (above 18 years)	33.3% (128)	33.8% (366)	41.0% (487)
Average number of child labour employed per acre (below 14 age)	3.5	3.4	2.4
Average number of child labour (15-18 years) employed per acre	3.2	3.5	3.3

Note: figures in brackets are absolute numbers

The decline in the incidence of child labour is largely due to proactive measures by the Gujarat and Rajasthan governments and active campaigns by child rights groups. Due to interest taken by NCPCR in Gujarat and Rajasthan, more actions are seen from the government to address the problem of child labour on cottonseed farms. Both the state governments have come out with government resolutions, dealing specifically with child trafficking on cottonseed plots. The Gujarat and Rajasthan governments set up border check posts at the beginning of the cottonseed season to stop the trafficking of children. The labour departments in these states undertook inspections of seed farms. Despite some positive impact, these official actions have not completely succeeded in stopping child trafficking. Moreover the recent government actions in these states led to new forms of corruption which developed around efforts to combat child labour on the cotton seed farms (Katiar Sudhir, 2009).

WAGES AND WORKING CONDITIONS

The recruitment of migrant child and adult workers for work in the cotton fields of North Gujarat is dependent upon an extensive network of agents, locally called 'mates', in the tribal villages (Ashok Khandelwal, Katiar Sudhir and Madan Vashnav, 2008). The mates are local tribal villagers who have had exposure to cottonseed work. Before the season starts, seed farmers approach these mates, place their demand for labourers and pay some advance money. The advance money includes travel costs of the labourers from their home to work and some advance equivalent to one or two weeks worth of wage payment. The daily wage rates are fixed in advance and the agreement lasts for one crop season (three months). It is the responsibility of the mates to identify the required number of labourers and see to it that they continuously work for the farmer for the entire agreement period. The mates receive a commission from the farmers for arranging the labourers.

The wage rates paid to children and adult workers on cottonseed farms have increased by 60–80% since 2003–04. The main reasons for the increase is the NREG Scheme which has created new employment opportunities for rural workers and helped them bargain for better wages. Also, the pressure exercised by the 'Dakshini Rajasthan Majdoor Union', a union of mates and workers that seeks to improve working conditions, hike wage rates, and stop employment of small children in cottonseed farms has had a significant positive impact on wages.

GENDER AND CASTE DISCRIMINATION

A division of labour and wage discrimination on gender lines is evident on cottonseed farms in Gujarat. Women are preferred for labour-intensive, but low-paid, operations like cross-pollination, weeding and harvesting. The wage differences between work carried out by female and male are significant. An adult female's average daily wage rate is nearly 50% less than an adult male's average daily wage rate. Wage differences also exist in the activities where both men and women participate. Though gender discrimination is evident in the division of activities and wage rates on the Gujarat cottonseed farms, it is not as severe as in Andhra Pradesh. Wage discrimination and differential treatment of workers on the basis of caste and ethnicity was not reported. This is probably because most of the labourers working on cottonseed farms are migrant Adivasi from a single ethnic community.

SHIFTING PRODUCTION FROM LARGE COMMERCIAL FARMS TO SMALL FAMILY BASED FARMS

SANKAR BHAISINGH (46) BELONGS TO A POOR ADIVASI FAMILY FROM JABAN VILLAGE IN PANCHMAHAL DISTRICT, GUJARAT. HE OWNS THREE ACRES OF LAND AND HIS INCOME FROM THIS LAND IS INSUFFICIENT FOR HIS FAMILY. HE HAS A WIFE, TWO DAUGHTERS AND ONE SON. UNTIL 2008 HE USED TO SEND HIS TWO DAUGHTERS TO WORK ON THE COTTONSEED FARMS OF A BIG PATEL FARMER IN IDAR AREA IN SABARKANTHA DISTRICT WHO HAS SIX ACRES OF COTTONSEED FARM.

A mate (labour contractor) in his village used to gather 15 to 20 young children every year and take them to Idar to work on cottonseed farms. The farmer who used to employ Sankar Bhaisingh's daughters stopped cultivating cottonseed in 2009 due to a reduction in profit margins on account of raising production costs and stagnation in procurement price. In the same year, a big seed company started cottonseed production in Jaban village. Sankar Bhaisingh was approached by the representative of the company to produce cottonseed for his company. He was offered a Rs. 5000 advance to cultivate cottonseed on 0.5 acres. He was told that he would get good returns from cottonseed production. Sankar Bhaisingh accepted this offer thinking that the work was family labour and he did not need to send his children to faraway places for work. For his 0.5 acre cottonseed farm he requires 7 labourers during the cross-pollination period. His entire five member family (his son studying 4th class also skipped school about two months to work on the farm) along with two of his relatives (his sister's children) work on the cottonseed farm. Like Sankar Bhaisingh there are many Adivasi families in Panchmahal and Vadodara districts who have recently entered into cottonseed production.



Shifting production from large commercial farms to small family based farms is a new trend which began in recent years. Due to reduction in profit margins on account of rise in production costs (mainly labour costs) and stagnant prices for the produce, large commercial farmers who mainly depend upon hired labour are slowly either withdrawing from cottonseed production or opting for share-cropping arrangements with labouring families. In recent years companies have witnessed demands for higher procurement price from large growers in several places. This is one of the reasons for the seed companies shifting their production to new locations and preferring to contract their production to small farmers. The small farmers are less organised and have less a bargaining power to get higher prices. This has implications for the work force composition in the cottonseed sector. Small farmers tend to depend more on their own family labour, including their children.

Karnataka

Like in Gujarat, Karnataka also has recently witnessed a significant rise in the area under cottonseed production. The area under cottonseed production has increased from 4,000 acres in 2003-04 to 5,000 acres in 2006-07 and 8,000 acres in 2009-10. Until recently, in Karnataka the public sector seed corporation was very active and competing with private seed companies in production and marketing of cottonseeds. In 2006-07 nearly 5,000 acres were under cottonseed production in the state, out of which 3,200 acres (64%) were controlled by Karnataka State Seed Development Corporation (KSSDC). The role of KSSDC in production and marketing of cottonseeds has drastically declined in the last three years. In 2009-10 the share of KSSDC in the production area dropped to less than 10%.

In 2009-10 nearly 8,000 acres were under cottonseed production in Karnataka, of which 35% was under the direct control of MNCs, namely Monsanto, Bayer and Advanta. The remaining 65% area was controlled by Indian companies like Raasi, JK Seeds, Bio Seeds, Vibha and Lakshmi. In Karnataka, cottonseed production is concentrated in five districts namely Raichur, Koppal, Gadag, Baghalkot and Kolar. These five districts account for over 90% of the cottonseed production in the state.

In Karnataka, the field survey was conducted in 2009-10 in 80 sample farms in 14 villages located in Ron taluk in Gadag district, in Yelberga taluk in Koppal district and in Chintamani taluk in Kolar district. Out of the 80 farms, 12 were producing seed for Monsanto, 13 for Bayer, 10 for Raasi, 8 each for Advanta, Vibha and Nuziveedu and 21 for other companies.

IMPORTANT FINDINGS

AVERAGE FARM SIZE

Like other cottonseed producing states, Karnataka's average cottonseed farms is declining. The total area covered by the 80 sample farms surveyed in 2009-10 is 69 acres and the average farm size is 0.86 acres. Compared to 2003-04 and 2006-07, there is a significant decline in average size of cottonseed farms in 2009-10 (from 1.5 acres in 2003-04, 1.12 acres in 2006-07 to 0.86 acres in 2009-10).

WORK FORCE COMPOSITION: FAMILY VS HIRED LABOUR

Compared to studies in 2003-04 and 2006-07, there has been an increase in the involvement of family labour in 2009-10. The proportion of family labour to the total work force accounted for 17.25% in 2003-04. This has increased to 21.4% in 2006-07 and 25.4% in 2009-10.

HIRED LABOUR COMPOSITION: MIGRANT VS LOCAL LABOUR

Compared to other states the proportion of migrant labour to the total work force is low in Karnataka. A total of 698 workers were engaged in these farms during peak cross-pollination season in 2009-10, out of which 74.6% (521) were hired labour. Among hired labourers only 6% were migrant labourers. Compared to 2003-04 and 2006-07, there has not been much change in the proportion of migrant labour to the total number of hired workers.

CASTE COMPOSITION OF WORK FORCE

The caste background of hired workers working on cottonseed farms shows that the majority of them belong to socially backward communities namely Scheduled Castes (SCs), Scheduled Tribes (STs) and Backward Castes (BCs). Of the total 521 hired workers in sample farms, 162

(31.1%) are from Scheduled Castes, 218 (43%) from Backward castes, and 72 (13.8%) are from Scheduled Tribes. There has not been much change in the caste composition of work force since 2003–04.

AGE AND GENDER COMPOSITION OF WORK FORCE

A total of 274 children between the age of 7–14 worked on hybrid cottonseed farms during the peak cross-pollination season. Children accounted for nearly 39.2% of the total work force, 79% of these children were girls. There were on average four children per one acre. Compared to 2003–04, the proportion of children (below 14 years) to the total work force and per acre employment of number of children has declined. The proportion of child labour to the total work force declined from 67.2% in 2003–04 to 55.6% in 2006–07 and 39.2% in 2009–10.

The proportion of child labour to the total work force varied from 15% to 50% in different regions. The incidence of child labour was found to be high in the Koppal district whereas fewer cases were found in the Kolar district. The proportion of children to the total work force in individual farms varied by company. The proportion of children to the total work force, compared to Indian seed companies, was found to be low on farms producing seed for multinationals Bayer and Monsanto, which have been implementing special measures to address child labour on farms producing seed for their companies. Despite implementing the same measures in Andhra Pradesh and Karnataka, the results achieved by these companies in Karnataka are not as encouraging as in Andhra Pradesh.⁴ This is due to the lack of active participation of civil society groups and involvement of government in cottonseed production areas in the state to address the problem of child labour.

WAGES AND WORKING CONDITIONS

The wages paid to children and adult workers on cottonseed farms varied between regions. The wage rates are relatively low in Koppal district, which has the highest incidence of child labour in cottonseed farms. The incidence child labour is lowest in the Kolar district. In 2009–10, the average daily wage rate paid to adult female workers was Rs. 52 in Koppal whereas Rs. 80 was paid in Kolar district. Compared to 2003–04, the wage rates for adult female workers in cottonseed farms has increased by 70% in Koppal and 100% in Kolar districts. There is not much change in the terms and conditions of employment. It is a common practice for seed farmers to use seasonal agreements with labourers by paying advances/loans.

GENDER AND CASTE DISCRIMINATION

Karnataka has more similarities with Andhra Pradesh with regard to employers' discriminatory practices in employment and wages in cottonseed farms on the basis of gender and caste. There is a distinct gender division of labour in cottonseed cultivation in the state and gender discriminatory practices are evident not only in allocation of types of work and rates of wages but in timings of work as well. Women, particularly girls are preferred for cross-pollination; weeding and harvesting operations are labour-intensive and low paid jobs. The wage differences are substantial between work done by male and female workers. Gender discrimination in wages is clearly evident in the case of adult labour whereas this is not so

⁴ Of the total 80 farms surveyed in Karnataka, 12 were producing seed for Monsanto and 13 were producing for Bayer. Out of 12 Monsanto farms, four farms were found without children and the remaining eight farms had 10 child labourers (five below 14 years and five between 15–18 years). Out of 13 Bayer farms, six farms were found without children and remaining seven farms were found with nine children (five below 14 years and four between 15–18 years). The proportion of children (below 14 years) to the total work force accounted for 6.7% and 6.1% on Bayer and Monsanto farms respectively.

evident in case of children. Adult female average daily wage rates are nearly 60% less than adult male average daily wage rates. In activities where both men and women participate wage differences also exist.

Though caste-based discrimination in wages was not reported in any of the study locations, differential treatment of workers by the employers on caste lines was reported in some locations. In Koppal district, Dalit women workers reported that some of their employers who belong to upper castes show discrimination between them and other fellow workers from upper castes. "The upper caste workers are allowed to take some respite during working hours. They are not scolded even if they are late to work. Whereas we (Dalit women) are not given this privilege. We are asked to do additional works at home and farm which upper caste workers are not asked to do", says Lakshmi, a Dalit worker from Basapur village in Koppal district.

TABLE 4
TRENDS IN WORK FORCE COMPOSITION IN COTTONSEED FARMS IN KARNATAKA

	2003-04	2006-07	2009-10
Total number of farms surveyed (area in acres)	20 (30 acres)	40 (45 acres)	80 (69 acres)
Total number of workers engaged during cross-pollination activity	302	478	698
Type of Labour: family vs hired			
% of family labour to total labour	17.2% (52)	21.4% (102)	25.4% (177)
% of hired labour to total labour	82.8% (250)	78.6% (376)	74.6% (521)
Hired Labour: local vs migrant			
% of migrant labor to total hired labour	8.8% (22)	7.5% (28)	6.1% (32)
% of local labour to total hired labour	91.2% (228)	92.5% (348)	93.9% (489)
Age and gender composition			
% of children to total work force (below 14 years)	67.2% (203)	55.6% (266)	39.2% (274)
% of girls to total children (below 14 years)	88.2% (179)	81.2% (216)	79.2% (217)
% of children to total work force (15-18 years)	20.9% (63)	33.9% (162)	34.1% (238)
% of girls to total children (15-18 years)	66.6% (42)	72.8% (118)	74.8% (178)
Adults (above 18 years)	11.9% (36)	10.5% (50)	26.6% (186)
Average number of children per acre (below 14 years)	6.7	5.9	4.0
Average number of children per acre (15-18 years)	2.1	3.6	3.4

Note: figures in brackets absolute numbers

Tamil Nadu

Tamil Nadu is one of the important centres for production of hybrid cottonseeds in India. After Gujarat and Andhra Pradesh, Tamil Nadu is the largest cottonseed producing state in India. In Tamil Nadu, the production takes place mainly in Attur taluk in Salem district and Kallakurchi taluk in Villupuram district which accounts for nearly 95% of the total cottonseed produced in the state.

In recent years due to severe pest problems the area under cottonseed production has declined in the state. In 2006–07 nearly 9,000 acres was under cottonseed production in the state. This has dropped to 5,000 acres in 2009–10. Raasi, Nuziveedu, Monsanto and Nath Seeds all produce seed crops in Tamil Nadu. Nearly 60% of the area under cottonseed production in this state is controlled by a single company, Raasi, one of the leading seed companies in India, based in Attur region of Tamil Nadu.

Tamil Nadu has many similarities with Gujarat in the way the cottonseed production is organized. Like in Gujarat, the cottonseed production in Tamil Nadu is largely dependent upon migrant labours that come from the Veelpuram, Velur, Theni, Kadalur, Perambalur and Tiruvannamalai areas of the same state. Migrant labours (both adults and children) constitute more than two thirds of the total work force. Like in Gujarat, seed farmers in Tamil Nadu are dependent upon on middlemen/agents (labour contractors) for recruiting migrant labour. Before the season starts, seed farmers approach labour contractors and place their demand for labourers, and pay advancements for these migrant workers. The advance money includes travel costs of the labourers from their home to work and anywhere between 15 to 30 days worth of wages. The per day wage rates are fixed in advance and the agreement lasts for one crop season. Adults and children are recruited through this process. Advance amounts ranged from Rs. 2000 to 3000 per worker.

In Tamil Nadu a field survey was conducted from 60 sample farms in 10 villages located in Attur taluka of Salem district. Out of the 60 farms surveyed, 36 produced seed for Raasi, 12 for Nuziveedu and four each for Monsanto and Nath Seeds.



TABLE 5**WORK FORCE COMPOSITION IN COTTONSEED FARMS IN TAMIL NADU IN 2006-07 AND 2009-10**

	2006-07	2009-10
Total number of farms surveyed (area in acres)	50 (47 acres)	60 (45 acres)
Total number of workers engaged during cross-pollination activity	436	442
Type of labour: family vs hired		
% of family labour to total labour	14.7% (64)	22.2% (98)
% of hired labour to total labour	85.3% (372)	77.8% (344)
Hired labour: local vs migrant		
% of migrant labour to total hired labour	82.8% (308)	74.1% (255)
% of local labour to total hired labour	17.2% (64)	25.9% (89)
Age and gender composition		
% of children to total work force (below 14 years)	46.3% (202)	31.2% (138)
% of girls to total children	58.4% (118)	67.4% (93)
% of children to total work force (15-18 years)	32.6% (142)	34.8% (154)
% of girls to total children (15-18 years)	60.5 (86)	62.3% (96)
Adults (above 18 years)	21.1% (92)	33.9% (150)
Average number of children employed per acre (below 14 years)	4.3	3.1
Average number of children employed per acre (15-18 years)	3.0	3.4

Section-II

24

IMPORTANT FINDINGS

DECLINE IN AVERAGE FARM SIZE

The total area covered by 60 sample farms is 45 acres and the average farm size is 0.75 acres. Compared to 2006-07, cottonseed farms have declined in 2009-10 (0.94 acres in 2003-04 to 0.75 acres in 2009-10).

WORK FORCE COMPOSITION: FAMILY VS HIRED LABOUR

In 2009-10, nearly 77.8% of the workers engaged in survey farms are hired labourers. Family labour accounted for 22.2% of the total labour force. Compared to 2006-07, family labour has increased (from 14.7% in 2006-07 to 22.2% in 2009-10). Like in other states, Tamil Nadu has shifted from large-scale commercial farms cottonseed production to small family based farms. The increase in the proportion of family labour to the total work force is due to this change.

CASTE COMPOSITION OF WORK FORCE

Most of the hired workers (children as well as adults) working on cottonseed farms are from communities subject to discrimination, namely Scheduled Castes (SCs), Scheduled Tribes (STs) and Backward Castes (BCs). Of the total 344 hired workers in sample farms, 128 (34.3%) of them are from Adivasi (Scheduled Tribes) and 108 (31.4%) of them are from Dalits (Scheduled Castes). Backward Castes account for 25% (85) while Muslims and upper castes account for 3.5% and 5.8 % respectively. There has not been much change in the caste composition of work force since 2003-04.

AGE AND GENDER COMPOSITION OF WORK FORCE

Table 5 details the age and gender division of workers employed in cottonseed farms during cross-pollination for the years 2006-07 and 2009-10. Children (below 14 years) constitute 31.2% of the total work force in 2009-10. Among them 67.4% were girls. On an average 3.1 children were engaged for one acre of seed production. Compared to 2006-07, there has been a decline in the proportion of children (below 14 years) to the total work force and per acre employment of number of children. The proportion of children to the total work force declined from 46.3% in 2006-07 to 31.2% in 2009-10. The average number of children employed per acre decreased from 4.3 persons in 2006-07 to 3.1 persons in 2009-10.

WAGES AND WORKING CONDITIONS

The wage rates are fixed for the whole season at the time of the agreement itself. During 2009-10, the daily wage rates paid to labourers for cross-pollination work in cottonseed farms varied between Rs. 80 and Rs. 100. Compared to 2006-07, wages increased by 50%-70% in 2009-10. Like in Gujarat and Andhra Pradesh, in Tamil Nadu the NREG Scheme significantly contributed to rising wages for rural workers in both cottonseed and other agricultural operations.

GENDER AND CASTE DISCRIMINATION

While gender discrimination is quite visible and widely prevalent, discrimination on the lines of caste was observed subtly. Like in other states, gender discrimination in wages and division of labour in cottonseed farms is quite prevalent in Tamil Nadu. Women are offered low paying jobs and their work is treated as insignificant. The wage differences between work carried out by females and males is significant. Adult females' average daily wage rates are nearly 65% less than adult males'. There is also a difference in wages in activities where both men and women participate. In 'joint male female' activities, very subtle differences lead to very wide payment differences. Though caste-based discrimination in wages was not reported, differential treatment of workers based on caste lines was reported in some locations.

NEW FORMS OF CHILD LABOUR

The pressure on farmers to reduce the labour costs is leading to the adoption of new strategies to find cheap labour. In Tamil Nadu, it is observed that the farmers encourage school attendance and cottonseed work as a part-time activity. The cross-pollination period is adjusted to suit the school hours – four hours in the morning (5.30 am to 9.00 am) before school starts and three hours in the evening (4.30 pm to 6.30 pm) after school. Children are paid a nominal amount of Rs. 20 per day for this work whereas the actual daily wage rate for adult workers is Rs. 80-100. Though it looks like a part-time activity, children actually work seven hours and the time they spend working is greater than the time they spend in school. This will have serious implications on school performance and slowly pressures them to dropout from schools and join the work force.

**STRUGGLE TO COMBINE BOTH WORK AND SCHOOL:
CASE STUDY OF A PART-TIME CHILD WORKER**



THE FOLLOWING CASE STUDY ILLUSTRATES A 'NEW FORM OF CHILD LABOUR', WHICH HAS RECENTLY CAME INTO EXISTENCE IN COTTONSEED PRODUCING AREAS OF TAMIL NADU; CHILDREN ARE PRESSURED TO COMBINE BOTH SCHOOL AND WORK.

SALVAMANI, A 12 YEAR OLD GIRL, HAILS FROM A POOR DALIT FAMILY IN PUTTUR VILLAGE IN SALEM DISTRICT. HER FAMILY OWNS ONE ACRE OF DRY LAND AND THE INCOME THEY GET FROM THEIR LAND IS INSUFFICIENT TO MEET THEIR EXPENSES. MOST PART OF THE TIME HER PARENTS WORK AS WAGE LABOURERS. SHE ATTENDS 7TH GRADE AT A LOCAL GOVERNMENT SCHOOL.

During the last two years the cottonseed growers in Puttur are encouraging school going children to take up cross-pollination work on cottonseed work as a part-time activity. In 2009, Salvamani joined as a part-time worker with a cottonseed employer in her village and worked for three months from September to December. The employer gave Rs. 500 in advance to Salvamani's father in August as a part of

the oral agreement to send Salvamani to work during the entire cross-pollination period. He paid Rs. 20 as a daily wage for Salvamani for working five hours a day. The daily schedule of Salvamani during the cross-pollination period is very hectic. She wakes up at 5 am to get ready by 6 am to start work in the fields. She works in the cottonseed field until 9 am. She comes back home at 9.30 am, eats and then goes to school by 10 am. From 10 am to 4 pm she attends the classes. She goes to the farm again at 4.30 pm and does emasculation work from 6.30 pm to 7.00 pm. She returns home around 7 pm. From 7.30 pm to 9.30 pm she bathes, finishes dinner and spends some time watching television. She goes to bed at 9.30 pm. Though cottonseed is intended to be a part-time activity, children actually work six hours (including travelling time to the field), which is the same amount of time they spend in school. Over time many of the children become overwhelmed with both school and work and often drop out of school in order to continue working in the cottonseed fields.



SECTION-III

ESTIMATES OF TOTAL NUMBER OF CHILDREN EMPLOYED IN COTTONSEED FARMS IN DIFFERENT STATES IN INDIA

The present section estimates the approximate total number of children employed in the total cottonseed production area in different states for 2009-10 and compares these results with 2003-04 and 2006-07. The estimates of the total number of children employed in cottonseed farms for 2003-04 and 2006-07 years for Andhra Pradesh, Gujarat, Tamil Nadu and Karnataka are taken from the author's previous studies published in 2004 and 2007⁵. The total number of child labourers in cottonseed production for the 2003-04 and 2006-07 crop seasons was estimated for each state separately on the basis of average requirement of labour per acre and

⁵ Venkateswarlu, Davuluri (2004a), Child Labour in Hybrid Cottonseed Production in Andhra Pradesh: Recent Developments, study commissioned by India Committee of Netherlands (for full text see www.indianet.nl/cotseed2.html); Venkateswarlu Davuluri (2004b), Child Labour in Hybrid Cottonseed Production in Gujarat and Karnataka, study commissioned by India Committee of the Netherlands (for full text see www.indianet.nl/gujakarn.html); Venkateswarlu, Davuluri (2007), Child Bondage Continues in Indian Cotton Supply Chain, study commissioned by India Committee of the Netherlands, ILRF, DWHH, OECD Watch (full report available at www.indianet.nl/pdf/childbondagecotton.pdf)

the proportion of child labour to the total work force in the sampled farms by extrapolating the sample proportions to the total area under cottonseed production in different states. Using the same methodology the total number of children employed in cottonseed farms is estimated for 2009–10 for different states. A detailed survey of 120 farms in Andhra Pradesh, 140 farms in Gujarat, 60 farms in Tamil Nadu and 80 farms in Karnataka was undertaken in 2009–10 to complete these estimates.

Table 6 presents the estimates of the approximate total number of children employed in hybrid cottonseed farms in Andhra Pradesh, Gujarat and Karnataka in India for 2003–04, 2006–07 and 2009–10. With regard to Tamil Nadu, the estimates are presented only for 2006–07 and 2009–10 as there is no data available for this state for 2003–04.

TABLE 6
ESTIMATES OF TOTAL NUMBER OF CHILDREN EMPLOYED IN HYBRID COTTONSEED FARMS IN DIFFERENT STATES IN INDIA FOR 2003–04, 2006–07 AND 2009–10

STATE	2003-04			2006-07			2009-10		
	Total pro- duction area (acres)	Total children (below 14 years)	Total children (15-18 years)	Total pro- duction area (acres)	Total children (below 14 years)	Total children (15-18 years)	Total pro- duction area (acres)	Total children (below 14 years)	Total children (15-18 years)
Andhra Pradesh	14,000	82,875	NA	16,000	70,400	57,600	12,000	31,200	42,000
Gujarat	26,000	91,000	83,200	25,100	85,340	87,850	38,000	91,200	125,400
Karnataka	4,000	26,800	8,400	5,000	29,500	18,000	8,000	32,000	27,200
Tamil Nadu	NA	NA	NA	9,000	38,700	27,000	5,000	15,500	17,000
Total	44,000	200,675		55,400	226,100	190,450	63,000	169,900	211,600

Although the total acreage of cottonseed production has increased, child labour on cottonseed farms has declined in the recent years. **The total number of children (below 18 years) employed on cottonseed farms in Gujarat, Andhra Pradesh, Karnataka and Tamil Nadu which account for more than 90% of total cottonseed production area in the country dropped from 416,550 in 2006–07 to 381,500 in 2009–10 (8.4%). The decline is significant in the age category of children below 14 years. The total number of children (below 14 years) employed on cottonseed farms declined by 25% since 2006–07 (from 226,100 in 2006–07 to 169,900 in 2009–10).**

The state wide trends indicate that, compared to the total work force, there has been a decline in number of child labourers as well as the average number of children employed per acre in cottonseed production in all the states. However, this has not clearly translated into a decline of total number of children employed on cottonseed farms in Gujarat and Karnataka states due to a substantial increase in the total area under cottonseed production in these states.

In Gujarat, the total area of cottonseed production increased by 58% (from 24,000 acres in 2006-07 to 38,000 acres in 2009-10). Though the proportion of children to the total work force declined from 66% to 59% and the average number of children per acre declined from 6.9 persons to 5.7 during 2006-07 and 2009-10, the total number of children employed during this period increased from 173,190 to 216,600.

Similarly in Karnataka, the total number of children employed on cottonseed farms increased from 47,500 in 2006-07 to 59,200 in 2009-10 even though the proportion of children to the total work force and average number of children employed per acre declined. This is largely due to increase land used for cottonseed production. The total area used for cottonseed production in Karnataka increased by 60% since 2008-07 (from 5,000 acres in 2006-07 to 8,000 acres in 2009-10).

In Andhra Pradesh, a total of 127,800 children were employed in cottonseed farms in 2006-07, of which 70,400 are below 14 years, and 57,400 are between 15 to 18 years of age. These numbers dropped to 73,200 in 2009-10, of which 31,200 are below 14 years, and 42,000 are between 15-18 years. **Compared to other states the decline of child labour is more significant in Andhra Pradesh. This is largely due to more proactive interventions undertaken by various agencies in this state to address the problem of child labour.**

Within Andhra Pradesh, Nandyala region in Kurnool district has witnessed a significant reduction in child labour on cottonseed farms. In Nandyala area, the local children rights groups, particularly MV Foundation, are very active. This is also an area where Bayer and Monsanto have substantial control over the cottonseed production area and are trying to address the child labour issue on their suppliers' farms. The large reduction in child labour in this area was the result of combined efforts of these companies, civil society groups and local government. While the supply of children into labour market was largely reduced by the Social Mobilization spearheaded by MV Foundation, these companies controlled the demand for child labourers. These initiatives affected both on the supply and demand for child labour. Children who were weaned out of work were either admitted to school or placed in Residential Bridge Course camps.

CONCLUDING REMARKS

The recent trends in employment of child labour in hybrid cottonseed production in India indicate that despite an increase in the production area, the overall number of children employed in this sector is declining. As a result of the efforts of local and international NGOs, the government, media and social investors, awareness has been created. Interventions by various agencies, including the government (particularly the National Commission for Protection of Child Rights), NGOs like MV Foundation, the seed industry and international organisations like ILO, UNICEF and UNDP have had a positive impact and helped to reduce child labour in the cottonseed industry. The decline of child labour is especially significant in Andhra Pradesh.

Despite the decline, the total number of children still employed in cottonseed sector is huge. This is due to the limited coverage of the present interventions. The response from the seed industry as a whole to address the problem of child labour has not been very encouraging. Despite acknowledging the problem and promising steps to address the problem of child labour, seed companies, except for a few multinationals, to date have not taken any serious efforts to tackle the issue on the farms producing seed for their companies. The initiatives undertaken by Bayer and Monsanto have had some positive impact in reducing the numbers of working children. However, their efforts have only a limited impact on the overall magnitude

of child labour in the industry. These efforts are nonetheless important, as they pave the way for broader initiatives, and it is important that individual companies continue to maintain and increase progress within their individual supply chains. However, unless all the major seed companies come forward and implement serious measures in collaboration with other stakeholders, it is difficult to ameliorate the overall problem.

Monsanto, as the supplier of BT technology to all the leading companies in India including Mahyco in which Monsanto has a 26% share, can and should play an important role in influencing them to take up measures to address the problem of child labour in their supply chain.

In 2009, CropLife, an international trade association of seed companies, made public a position paper on child labour in the seed supply chain⁶. All the leading multinationals, Monsanto, Syngenta, DuPont, Bayer CropScience, BASF, and Dow AgroSciences who have a substantial presence in Indian seed market are members of this association. In this position paper, all the member companies agreed to adopt a common approach and to work together in order to have a greater impact at the industry level tackling the problem of child labour. In the Indian context, this idea of a common approach and field level collaboration between Crop Life's member companies has not yet materialized. Some of the companies like DuPont and Dow AgroSciences have not yet started implementing any serious steps to address the problem of child labour in their cottonseed supply chain. The other companies are also still implementing their company-specific programmes and little action is seen at ground level to cooperate with each other. The companies that have not yet initiated steps need to do so urgently. Companies that have initiated efforts should maintain and increase these efforts, while as a whole, industry actors should compare information and seek to develop a comprehensive, industry-wide approach in the future. Where possible they should also combine this industry-wide approach at local level with efforts of others (NGOs, local governments etc.) to implement area-specific approaches to eliminate all child labour in that particular area.

⁶ CropLife Position on Child Labor in the Seed Supply Chain, 12-06-2009.

For complete text see



INDIA COMMITTEE OF THE NETHERLANDS (ICN)

is an independent human right 'in solidarity with the oppressed in India'. Its activities include research, advocacy, campaigning and networking (NOT funding). It is working in the thematic areas of child labour and education, labour rights and caste-based discrimination as well the cross-cutting theme of corporate accountability. It focussed on certain sectors in the Indian and global economy like tea, cotton(seed), garments and stone quarrying. ICN is an active member of a number of Dutch, European and international coalitions like Stop Child Labour, International Dalit Solidarity Network, the Clean Clothes Campaign and the Dutch CSR Platform of NGOs.

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'STOP CHILD LABOUR – SCHOOL IS THE BEST PLACE TO WORK' (SCL)

started in 2003 as a joint advocacy, education and awareness raising campaign in Europe inspired by the successful work of the NGO MV Foundation (MVF) in India. SCL is a joint initiative of the Alliance2015 network of development organizations in Germany, Ireland, Denmark, Italy, Czech Republic and the Netherlands. Over the years the campaign has increased its cooperation with organizations in other parts of the world, especially in child labour affected countries in e.g. Africa and Latin America. All partners are working on the basis of the principle that 'no child should work; every child must be in school'.

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31



INTERNATIONAL LABOR RIGHTS FORUM

is a non-profit 501(c)(3) organization headquartered in Washington, DC. We believe that all workers have the right to a safe working environment where they are treated with dignity and respect, and where they can organize freely to defend and promote their rights and interests. ILRF is recognized as one of the most effective organizations to stimulate creative solutions to combat labor rights abuses and to raise public awareness among US consumers of their global connections to workers around the world. ILRF's work supports core labor rights and the concept of decent work as defined by the International Labor Organization (ILO). Core labor rights include the right to associate and

bargain collectively, the prohibition of discrimination against women, and the elimination of forced labor and child labor.

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