
Child Bondage Continues in Indian Cotton Supply Chain

**More than 400,000 children in India involved in
hybrid cottonseed cultivation**



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ACRONYMS AND ABBREVIATIONS

AP	Andhra Pradesh
ASI	Association of Seed Industry
BT	Bacillus Thuringiensis
CACL	Campaign Against Child Labour
CRPF	Child rights Protection Forum
DRMU	Dakshini Rajasthan Majdoor Union
EG	Emergent Genetics
HLL	Hindustan Lever Limited
ICN	India Committee of the Netherlands
ILO-IPEC	International Labour Organisation – International Programme for Elimination of Child labour
ILRF	International Labour Rights Forum
MAHYCO	Maharashtra Hybrid Seed Company
MMB	Mahyco-Monsanto Biotech Limited
MNCs	Multinational Companies
MVF	Mamidipudi Venkatarangaiah Foundation
NCLP	National Child Labour Project
NGO	Non Governmental Organisation
NREGS	National Rural Employment Guarantee Scheme
OECD	Organisation for Economic Cooperation and Development
RBC	Residential Bridge Course
SCs	Scheduled Castes
STs	Scheduled Tribes
SSA	Sarva Siksha Abhiyan
UNICEF	United Nations Children’s Education Fund

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Executive summary

The recent trends in employment of child labour in hybrid cottonseed production in different states in India clearly indicate that the overall number of children employed in this sector is on the rise. The conditions in the fields continue to be very unsafe and exploitative for the children. The children are made to work long hours and are paid less than market and official minimum wages. They are also exposed to poisonous pesticides used in high quantities in cottonseed cultivation and are often trafficked as migrants from other places. The existing employment practices in cottonseed farms result in the denial of rights of children and violate many national laws and international conventions.

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 Gujarat, Andhra Pradesh, Tamilnadu and Karnataka states which account for nearly 92% of the total production area in the country. Gujarat, which has the largest cottonseed production area in the country, accounts for nearly 175,260 (42%) of the total children employed in this sector. Several Indian companies and multinationals, namely Monsanto and Bayer, are involved in this 'modern form of child slavery'. The biggest among them, the Indian companies Nuziveedu, Raasi, Ankur and Mahyco (a joint venture partner of Monsanto), make use of around 200,000 children who are employed by the farmers to which they have sub-contracted the cultivation of BT cotton seeds. The response of state and central governments and the seed industry to address the problem of child labour in this sector has not been very encouraging. Though the efforts made by a few NGOs like MV Foundation, special projects implemented by ILO-IPEC, UNICEF and initiatives by few individual seed companies in the state of Andhra Pradesh had some positive impact, due to their limited coverage these efforts have had a very minimal impact on the overall magnitude of child labour in the cottonseed industry.

INTRODUCTION

The use of child labour in the production of hybrid cottonseeds in India has been widely reported and documented. The reported large scale violations of child rights have caught the attention of many around the world. Since 1998, a number of studies have been conducted on the nature and magnitude of child labour, working conditions of children, reasons for large-scale employment of children in this sector and role of large-scale national and multinational seed companies (MNCs) contributing to this problem¹. The latest reports on the overall situation of child labour in cottonseed production in AP, Gujarat and Karnataka states where nearly 75% of total cottonseed production area in India is concentrated were published in 2004². According to the report on Andhra Pradesh, an estimated total number of 82,750 children in the age group of 7 to 14 were employed in cottonseed farms producing seed for both national and multinational seed companies during 2003-04. In Gujarat and Karnataka, this number was estimated as 90,000 and 28,000 respectively.

Since 2004, many developments have occurred which have affected the nature and magnitude of child labour in cottonseed industry in India. The new developments since 2004 include: a) an increase in the total area under commercial cotton as well as cottonseed production, b) substantial increase in the area under BT cotton hybrids resulting in growing control of MNCs over cottonseed business, c) growing pressure on seed companies from local and international NGOs, media and social investor groups resulting in proactive initiatives by some seed companies to address the problem of child labour in their production farms and d) interventions, particularly in the state of Andhra Pradesh by the government, NGOs, and international organisations like ILO-IPEC and UNICEF, to address the problem of child labour³.

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 <http://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 India Committee of the Netherlands (for full text see <http://www.indianet.nl/cotseed.html>) 5) Mujeeba Tarannum & M Gopinath Reddy, (2006) '*A Study of Girl Child Labor in Hybrid Cotton Seed Production in Kurnool District of Andhra Pradesh*', ICFIA Journal of Public Administration, ICFIA Press, vol. 0(2), pages 60-79, April, and 6) Katiar, Sudhir (2006) '*Wages of Adolescence: Annual Exodus of Tribal Adolescents from South Rajasthan to Bt Cotton Seed Plots of North Gujarat*' (for full text see <http://www.migrationindia.org/casestudy/case%20satudy%20-%20sudhir%20katiyar.pdf>)

² 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 <http://www.indianet.nl/cotseed2.html>) and 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 <http://www.indianet.nl/gujakarn.html>)

³ Both UNICEF and ILO-IPEC paid special attention to the problem of child labour in cottonseed farms in Andhra Pradesh. Since 2005 UNICEF with the support of IKEA and ILO-IPEC with the support of DFID have been implementing special projects to address the problem of child labour in Kurnool and Mahaboobnagar districts where cottonseed production is concentrated in AP.

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

Hybrid cottonseed production in India is concentrated in five states, namely Andhra Pradesh, Tamilnadu and Karnataka in South India and Gujarat and Maharashtra in the central part of India. These five states account for nearly 95% of total cottonseed production in the country. Until recently, Andhra Pradesh used to be the largest producer of cottonseed but now Gujarat has overtaken this position.

The specificity of hybrid cottonseed production in India is that the majority of the labour force in this sector is children, particularly girls. No other industry in India has such a high proportion of child labour in its workforce (Venkateswarlu, D. 2001). Hybrid cottonseed production is a labour intensive activity. A chief part of this production is cross-pollination which is done manually and this activity alone requires that about 90% of the total labour expended is done mostly by children⁴. Children 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 (8 to 12 hours) and are paid less than market and official minimum wages. They are also exposed to poisonous pesticides used in high quantities in cottonseed cultivation. Most of the children working in cottonseed farms belong to poor families from Scheduled Castes (SCs), Scheduled Tribes (STs) and Backward Castes (BCs) (Venkateswarlu, D.,2001)⁵.

Farmers employ children, particularly girls, primarily in order to minimize costs. In cottonseed production, the labour costs account for about 50% of total cultivation costs (Venkateswarlu, D. and da Corta, L. 2005). Farmers endeavour to cut these labour costs by hiring children because the wages paid to children are far below both the market wages for adults in other agricultural field work and even further below official minimum wages. Farmers also hire children in preference to adults because farmers can squeeze out higher productivity from children per day. Children will work longer hours, will work much more intensively and they are generally much easier to control than adult workers – whether through verbal or physical abuse or through inexpensive treats like chocolate or hair ribbons (Venkateswarlu, D. and da Corta L. 2001, Ramamurthy Priti, 2000). According to Sivaramakrishna, a seed farmer in Mahaboobnagar district, Andhra Pradesh, *'Cross- pollination work is very labor intensive and a large number of laborers is required to do this work. It is also delicate work and needs to be handled carefully. We prefer young girl children for this task because with their delicate*

⁴ Cross-pollination involves two separate activities: emasculation and pollination. In plants crossing is done by placing pollen grains from one genotype - the male parent on to the stigma of flowers of the other genotype, the female parent. The removal of stamens or anthers or killing of pollen grains of a flower without effecting in any way the female reproductive organs is know as emasculation. About two months after sowing, the plant starts blossoming and continues growing for three to four months. During this time, cross-pollination (both emasculation/pollination) need to be done everyday, without fail. The duration of cross-pollination activity is 70 to 100 days and for doing this work in one acre farm requires 10 to 15 labourers per day.

⁵ In Andhra Pradesh the caste background of families of working children is 45.2 scheduled castes (Dalits) and 47.1 Backward Castes, (including Muslims). The rest are Forward Castes and Scheduled Tribes.

fingers (nimble fingers) they can handle this work better than adults. They also work more intensively than adults. We can control them easily. They listen to us and do what ever we ask them to do. The most important thing is labor costs. Nearly half of our investment goes towards payment of labor charges. The wage rates for children are far lower than adult wages. We can reduce our labor costs considerably if we hire girl children. If we want to hire adult labour we have to pay higher wages. With current the procurement price we get from the seed companies we can not afford to pay higher wages to the labourers'.

The exploitation of child labour on cottonseed farms is linked to larger market forces. Several large-scale national and multinational seed companies, which produce and market the seeds, are involved in perpetuating the problem of child labour. The economic relationship behind this abuse is multi-tiered and complex and masks legal and social responsibility. Cottonseed production is carried out through contract farming. Companies depend upon local farmers for seed production. They arrange seed buy back arrangements with local farmers through middlemen called 'seed organizers'. Seed organizers mediate between companies and farmers. Although seed companies are not directly involved in the production process, they exert substantial control over farmers and the production process by supplying foundation seed, advancing production capital, fixing the procurement prices and through stipulating quality controls (Venkateswarlu D. 2003).

The employment of children in cottonseed work has an adverse impact on literacy and health of children. About 90% of the children working in cottonseed fields are either school dropouts or have never attended school (Venkateswarlu, D. 2001). Working in cottonseed fields also has important health implications for the children involved. The use of pesticides in hybrid cottonseed cultivation is high and children working on farms are directly exposed to poisonous pesticides for prolonged periods. A report published by Physicians for Human Rights in 2003 pointed out that children working in cottonseed farms are exposed to various health risks. The general health problems reported by children working in cottonseed farms include severe headaches, nausea, weakness, convulsion and respiratory depression⁶. Few cases of children's deaths due to pesticide exposure were also reported in Andhra Pradesh.

The existing employment practices in cottonseed farms result in the denial of children's rights and violate many national laws and international conventions. Children's right to education, health and safe living are denied by employing them on the farms on a long term contract basis, making them to work long hours and exposing them to poisonous pesticides that are applied in high quantities on the plants (Venkateswarlu, D. 2001). Securing of children's labour through giving loans/advances to their parents and compelling them to work until the loan is repaid, long hours of work and paying less than minimum wage violates many Indian laws including: The Children (Pledging of Labour) Act 1933⁷, The Bonded Labour System

⁶ Physicians for Human Rights Child Rights Group (2003) 'Child labour in India: A Health and Human Rights Perspective' The Lancet, December, 2003, Vol 362.

⁷ The Children (Pledging of Labour) Act 1933 prohibits the making of agreements to pledge the labour of children below 15 years, and the employment of children whose labour has been pledged.

(Abolition) Act, 1976⁸, The Child Labour (Prohibition and Regulation) Act 1986⁹ and Article 21A of the Indian constitution which guarantees every child a fundamental right to free and compulsory education up to the age of 14 years. It also violates ILO Convention No. 138 regarding minimum age for admission to employment, Convention No. 182 which prohibits worst forms of child labour and the UN Convention on the rights of the child (1989)¹⁰.

Objectives of the study

The principal aim of the present study is to examine the current situation and recent trends in employment of child labour in hybrid cottonseed farms in four Indian states namely Andhra Pradesh, Gujarat, Tamilnadu and Karnataka in the context of recent developments in the industry.

Methodology

The present study is mainly based on the analysis of primary data collected through field visits to 430 sample cottonseed farms in 78 villages in four Indian states namely Andhra Pradesh, Karnataka, Gujarat and Tamilnadu. These four states account for nearly 90% of the total cottonseed production area in India. Out of 430 farms surveyed, 280 are in Andhra Pradesh, 60 in Gujarat, 50 in Tamilnadu and 40 in Karnataka. Table 1 presents a break down of sample farms by company included in the survey in different states. Of the total 430 farms surveyed 72 were producing seed for multinationals or its joint venture companies (42 in AP, 6 in Karnataka and 12 each in Gujarat and Tamilnadu) and the remaining 358 for local Indian companies (238 in AP, 48 in Gujarat, 34 in Karnataka and 38 in Tamilnadu). The names of important local Indian seed companies included in the survey are Nuziveedu Seeds, J.K. Seeds, Ankur Seeds, Raasi Seeds, Nandi Seeds, Palamur Seeds, Tulasi Seeds, Vikram, Nath Seeds and Vibha Seeds. The names of MNCs are Monsanto and its Indian partner Mahyco (Monsanto holds a 26% share in Mahyco) and Proagro (owned by Bayer).

In Andhra Pradesh the survey was conducted in Mahaboobnagr (Gadwal, Maldakal, Izaa, Dharur, Boothpur mandals), Kurnool (Uyyalawada, Sanjamal, Dornipadu, Alur, Emmiganur, Kodumur, Kowthalam mandals) and Rangareddy (Gended mandal) districts. In Tamilnadu survey was conducted in Attur taluk of Salem district which is the main production centre for

⁸ The Bonded Labour System (Abolition) Act, 1976, completely prohibits employment of labourers of all age groups under bonded labour conditions. According to the definition given in section 2(g) of the Act, bonded labour means service arising out of loan/debt/advance. It represents the relationship between a creditor and a debtor wherein the debtor undertakes to mortgage his services or the services of any of his family members to the creditor for a specified or unspecified period with or without wages accompanied by denial of choice of alternative avenues of employment, or to deny him freedom of movements, then the person would normally be covered under the definition of a bonded labour.

⁹ The Child Labour (Prohibition and Regulation) Act 1986, though does not specifically prohibit the work of children below 14 years in agricultural operations; it restricts number of working hours in a day to maximum of six including time spent waiting for the work.

¹⁰ The ILO's Minimum Age Convention, 1973 (No. 138) specifies that the minimum age for admission to employment shall not be less than the age of completion of compulsory schooling and in any case not less than 15 years and 14 years in case of developing countries. Article 32 of UN convention on rights of the child (1989) recognises the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with that child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development, etc.

cottonseed in Tamilnadu. In Gujarat survey was conducted in Sabarkantha (Idar and Khedbrahama taluks) and Mehasan (Vijapur taluk) districts and in Karntaka in Gadag (Ron taluk) , Koppal (Kanakagiri taluk) and Gulbarga (Sadem taluk) districts.

Table 1: Distribution of sample farms surveyed in different states by company

Name of company	Andhra Pradesh	Gujarat	Karnataka	Tamilnadu	Total farms
Monsanto	38			12	50
Bayer (Proagro)	4		6		10
Mahyco (joint venture company of Monsanto)		12			12
Nuziveedu	40	20		12	77
Raasi	32		8	22	62
Ankur	24				24
JK seeds	10		4		14
Tulasi	25				25
Vikram		12			12
Vibha		8			8
Nath Bio	10			4	14
Nandi seeds	8				8
Palamur seeds	8				8
Pravardhana	6				6
KSSDC			18		12
Other small companies	75	8	4		88
Total	280	60	40	50	430

The field survey for the present study was conducted between September 2006 and February 2007. Information on age and gender composition of workers, wage rates and working conditions was gathered through separate interviews and discussions with labourers and seed farmers and also through field observations. In some borderline cases, age determination was found difficult by the field investigators by physical observation or discussions with workers. Workers who may be 13 or 14 years also reported their age as above 14 years knowing that law prohibits employment of children below 14 years. Age determination was found difficult with regard to 302 cases out of total 6260 workers (146 cases out of 4264 in Andhra Pradesh, 36 cases out of 478 in Karnataka, 34 cases out of 436 in Tamilnadu and 66 cases out of 1082 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 is really a child are 50%. As per the investigators' opinion and as per our observations in the field calculating 50% of probably children as definitely children is the best guess.

No official data are available on the total area under cottonseed production and the area covered by individual seed companies. 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 2006-07 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 the total work force in the sampled farms by extrapolating the sample proportions to the total area under cottonseed production in different states.

SECTION - II

COTTONSEED INDUSTRY IN INDIA - RECENT DEVELOPMENTS

India has the distinction of having the largest area under cotton cultivation in the world. With about 9 million hectares of land under cotton crop, India accounts for 21 percent of the world's total cotton area and 12 percent of global cotton production. There has been an overall increase in total area under cotton production and productivity of cotton in India in recent years. Table 2 presents state wise area and productivity of cotton in India between 2003-04 and 2006-07. The total area under cotton has increased from 7.6 million hectares in 2003-04 to 9.1 million hectares in 2006-07. The average yields per hectare cotton also increased significantly during this period. The average yield per hectare cotton increased from 399 Kgs in 2003-04 to 501 Kgs in 2006-07. The increase in production area and yields are largely attributed to the increased use of BT (*Bacillus Thuringiensis*) cotton hybrids (a shift from traditional hybrids to BT cotton hybrids) and favourable climatic conditions.

**Table 2: STATE WISE AREA AND PRODUCTIVITY OF COTTON IN INDIA
(Area in lakh hectares and yield in kgs per hectare)**

	2003-04		2004-05		2005-06		2006-07	
	Area	Yield	Area	Yield	Area	Yield	Area	Yield
Punjab	4.52	389	5.09	551	5.57	610	5.88	752
Haryana	5.26	372	6.21	424	5.83	379	5.33	542
Rajasthan	3.44	452	4.38	427	4.71	397	3.50	389
North total	13.22	399	15.68	466	16.11	464	14.71	589
Gujarat	16.47	516	19.06	651	19.06	794	23.90	662
Maharashtra	27.66	191	28.40	311	28.75	213	31.24	283
Madhya Pradesh	5.91	565	5.76	472	6.20	494	6.30	486
Central total	50.04	342	53.22	450	54.01	450	61.44	451
Andhra Pradesh	8.37	557	11.78	469	10.33	527	9.62	565
Karnataka	3.13	228	5.21	261	4.13	268	3.70	276
Tamilnadu	1.03	619	1.29	725	1.40	668	1.33	639
South Total	12.53	480	18.28	428	15.86	472	14.65	499
Others	0.51	333	0.68	250	0.79	215	0.78	218
TOTAL	76.30	399	86.86	470	87.77	478	91.58	501

Source : Cotton Advisory Board <http://www.cotcorp.gov.in/statistics.asp#area>

India has been a pioneer in developing hybrid seeds for commercial use in cotton. About 6 million hectares (65% of total cotton area) of land in India is currently covered with hybrid varieties. The use of hybrids, particularly BT cotton hybrids, has witnessed significant rise in recent years. BT cotton was officially introduced in India in 2002-03. Beginning with 38,038 hectares in 2002-03, the area under BT cotton hybrids increased to 3.8 million hectares in 2006-07. Monsanto, which has patent rights over BT gene, has sublicensed the use of its gene to several Indian seed companies which have incorporated BT gene in their proprietary hybrids. The growth in total area under commercial cotton and increasing demand for hybrid

seeds in the market resulted in an increase in the area under cottonseed production. Table 3 presents the total area under cottonseed production by state for 2003-04 and 2006-07. The total area under cottonseed production increased from nearly 54,000 acres in 2003-04 to 60,000 acres in 2006-07. In 2003-04, the cottonseed production area covered by BT cotton hybrids was around 9% (5,000 acres out of 54,000 acres) which has increased to nearly 66% (40,000 acres out of 60,000 acres) in 2006-07. It is important to note that whether it is a traditional hybrid or BT hybrid, the hybridization process involved in production of these seeds is the same¹¹. Hybridization, which is a vital activity in cottonseed production, is carried out through hand emasculation and pollination methods using a large labour force.

Estimates of total production area

In India, hybrid cottonseed production is concentrated in four states namely Andhra Pradesh, Gujarat, Tamilnadu and Karnataka which account for nearly 90% total cottonseed production area in the country. Of the total 60,000 acres of cottonseed production in India in 2006-07, Gujarat has the largest area covering nearly 25,000 acres (41.6%), followed by Andhra Pradesh with 16,000 acres (26.6%), Tamilnadu with 9,000 acres (15%) and Karnataka with 5,000 acres (8.3%).

Table 3 : Approx. total area under hybrid cottonseed production in India by state (area in acres)

Name of the state	2003-04	2006-07
Andhra Pradesh	14000	16000
Gujarat	26000	25400
Karnataka	4000	5000
Tamilnadu	6000	9000
Other states (Maharashtra, M.P., Punjab etc)	4000	5000
Total India	54000	60300

Note : No official data are available on the total extent of area under cottonseed production and the area covered by individual seed companies. This information was gathered through discussions with representatives of seed companies and key informants in seed industry circles.

Role of private seed companies

The production and marketing of hybrid seeds in India is carried out by both public and private sector seed agencies. During the 1970s, the public sector seed corporation played a predominant role in the developing, producing and marketing of hybrid cottonseeds. However, since 1985, the role of private seed companies in cottonseed business has been growing rapidly. Currently, private seed companies, both MNCs and Indian companies, account for nearly 90% of the total cottonseed produced and marketed in the country. Table 4 presents the approximate area under hybrid cottonseed production by company in India for 2006-07. Of the total 60,000 acres under cottonseed production in 2006-07, 12.7% (7,680

¹¹ Cross-pollination of two plants or lines of dissimilar genotype is known as hybridization. Hybridization consists of two major steps i.e. emasculation and pollination.

acres) are under the direct control of MNCs, namely Monsanto and Bayer, and the remaining area is controlled by Indian companies like Raasi, Nuziveedu, Tulasi, Ankur, JK Seeds, Vikram, Krishidhan, Naath Seeds and Nandi Seeds. Monsanto, which has patent rights over BT gene, has indirect control over a large production area through its sublicense agreements with Indian seed companies. All the major Indian seed companies have sublicensed BT gene from Monsanto¹².

Table 4: Approximate area under hybrid cottonseed production in India by company during 2006-07 (area in acres)

Name of company	Andhra Pradesh	Gujarat	Karnataka	Tamilnadu	Other states	Total area
Multinational companies						
Monsanto	2200	400		800		3400
Bayer (Proagro)	60		220			280
Mahyco (joint venture company with Monsanto)		1500			2500	4000
Indian companies						
Nuziveedu	2000	6000		2500		10500
Raasi	1150		600	4400		6150
Ankur	1200	5000				6200
JK Seeds	800	125	600	800		2325
Tulasi	1800			100		1900
Ajeeth Seeds		1500				1500
Vikram		2000				2000
Vibha		800				800
Nath Bio	500	2000				2500
Krishidan	1300					1300
Amar Bio Tech	1400					1400
KSSDC			3200			3200
Other small companies	3600	6375	380	400	2500	12955
Total	16010	25400	5000	9000	5000	60310

Note : No official data are available on the total extent of area under cottonseed production and the area covered by individual seed companies. This information was gathered through discussions with representatives of seed companies and key informants in seed industry circles.

¹² Monsanto through its joint venture company 'Mahyco- Monsanto Biotech Limited (MMB)' has sublicensed its BT technology to several seed companies in India. Under the sublicense agreement MMB permits sub licensees to use its BT technology by paying fixed 'trait value' (another name for royalty) on each packet of seed they sold in the market. Sub licensees have to pay this royalty as long as they use MMB's BT technology. In the initial years MMB fixed trait value at Rs 1250 on each packet of seed (450 grams) and subsequently reduced it to around Rs 100 in 2006-07 after Monopolies and Restrictive Trade Practices Commission directed the company to reduce the trait value and different state governments in India put the tag on maximum selling price of BT cottonseed in the market at Rs.750 per packet.

SECTION - III

TRENDS IN EMPLOYMENT OF CHILD LABOUR: FIELD SURVEY FINDINGS

This section presents the important findings from the field survey carried out during 2006-07 crop season in different states. In order to understand the trends in employment of child labour in 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.

ANDHRA PRADESH

Andhra Pradesh is the second largest state in the production of hybrid cottonseeds in India¹³. All the major seed companies have their production facilities in Andhra Pradesh. Compared to other states in India, the issue of child labour in cottonseed farms in Andhra Pradesh has received much wider attention. Since 2000, a number of initiatives to address the problem have been undertaken by the Government, non-governmental organisations (NGOs), the seed industry and international agencies like ILO-IPEC, UNICEF and UNDP (Venkateswarlu, D. 2004). The latest report on the overall situation of child labour in cottonseed production in Andhra Pradesh was published in 2004. According to this report, during the 2003-04 crop season the total number of children (below 14 years) employed in cottonseed production the state was estimated as 82,750 (Venkateswarlu, D. 2004). In this section, we present the important findings from field survey conducted in 2006-07 and compare these findings with previous study conducted in 2003-04.

The total area under cottonseed production in the state has increased from 14,000 acres in 2003-04 to 16,000 acres in 2006-07. The increase in the area is due to growing market demand for hybrid cottonseeds, particularly BT cotton varieties in the country. Out of 16,000 acres in 2006-07, 2260 acres (14%) was under the direct control of MNCs, namely Monsanto (2200 acres) and Bayer (60 acres), and the remaining area was controlled by several Indian companies. Among Indian seed companies, the major companies are Nuziveedu (2000 acres) Tulasi (1800 acres), Krishidhan (1300 acres), Ankur (1200) and Raasi (1150 acres). All these Indian companies have sublicensed BT gene from Monsanto.

In Andhra Pradesh, the field survey was conducted in 13 mandals in three districts namely, Mahaboobnagr Kurnool and Rangareddy, where nearly 90% of the cottonseed production is concentrated in the state. The mandals selected for the survey are Gadwal, Maldakal, Izaa, Dharur and Boothpur in Mahaboobnagar district; Uyyalawada, Sanjamal, Dornipadu, Alur, Emmiganur, Kodumur and Kowthalam mandals in Kurnool district; and Gended mandal in

¹³ Until the 1990s Andhra Pradesh used to be the largest state in the production of hybrid cottonseeds in India. After the introduction of BT cotton in the early 2000s the area cottonseed production in Gujarat has rapidly increased and now it became the largest cottonseed producing state in India replacing Andhra Pradesh.

Rangareddy district. Of the total 280 sample farms selected for the survey, 154 are located in Kurnool, 112 farms are in Mahaboobnagar and 14 are in Rangareddy district. Broken up by company, the sample indicates that out of 280 farms, 42 were producing seed for the MNCs Monsanto and Bayer, and the remaining 238 farms were producing seed for Indian companies namely Nuziveedu (40 farms), Raasi (32 farms), Tulasi (25 farms) Ankur (24 farms), Nath Seeds (10 farms), JK Seeds (10 farms), Palamur (8 farms), Nandi Seeds (8 farms) and Pravardhana (6 farms).

Important findings

- Table 5 presents the details of age and gender division of workers engaged in 280 sample cottonseed farms surveyed in 2006-07. The total area covered by 280 sample farms is 414 acres and the average farm size is 1.48 acres. Compared to 2003-04, there is not much change in the average size of farms (average size of farm was 1.57 acres in 2003-04).
- A total of 1,820 children in the age group of 7-14 years worked in these farms during peak cross pollination season. Children accounted for nearly 42.7% of the total workforce. Among child labourers, 73.6% were girls. An average 4.4 children were engaged in work per one acre of seed production. Compared to 2003-04, the proportion of children (below 14 years) to the total workforce and per acre employment of number of children has slightly declined. The proportion of child labour to the total workforce declined from 57.4 % in 2003-04 to 42.7% in 2006-07.
- 78.2% of the workers engaged in these farms are hired labourers. Family labour constitutes only 21.8% of the total labour force. Compared to 2003-04, there is a marginal increase in the involvement of family labour (from 20% in 2003-04 to 21.8% in 2006-07).
- The proportion of child labour to the total workforce varied between 30 to 70% in different regions. The proportion of child labour to the total workforce was found low between 20 to 44% in Nandhyala division (mandals like Sanjamala, Koilkuntla and Uyyalawada) in Kurnool and in Gadwal division (mandals like Maldakal and Dharur) of Mahaboobnagar district. Due to the active campaign launched against the employment of child labour in these areas, the seed farmers have recently started slowly replacing the child labour with adult labour in their farms. The proportion of children to the total workforce was relatively high (varied between 35 to 70%) in Boothpur mandal in Mahaboobnagar, Ganded in Rangareddy, and Kowthalam, Yemmiganur and Kodumur in Kurnool district.
- Variations are also observed in the proportion of children to the total workforce in individual farms producing seed for different companies. Compared to Indian seed companies, the proportion of children to the total workforce was found significantly lower on farms producing seed for MNCs, namely Monsanto and Bayer. The proportion of children to the total workforce varied between zero to 24% in different farms producing seed for MNCs covered under present survey while this percentage was varied between

15% to 64% in different farms producing seed for Indian companies. Due to pressure from local NGOs like the MV Foundation, which is actively involved in the campaign against child labour in general and the cottonseed sector in particular in the state, and international NGOs, social investor groups and media, the multinationals Monsanto and Bayer have recently started implementing various measures to address the problem of child labour in their production farms¹⁴. Since 2005-06 both these companies have been implementing an action plan which includes motivation campaigns, price incentives to the growers for not employing children and disincentives like black listing of farmers found using child labour for future production. Financial support was given to the Naandi Foundation, a Hyderabad based NGO, for establishing 29 special schools (Creative Learning Centres) for child labourers to help them join in regular schools. Though the problem is far from resolved the initiatives undertaken by these companies led to a decline in the numbers of children on their farms since 2005-06. The field inspections carried out by CCP (Child Care Project) members specially appointed by Bayer and Monsanto to implement their child labour elimination programme, indicate that the proportion of children to the total force on Monsanto farms dropped from around 10% in 2005-06 to 4% in 2006-07 and on Bayer farms from around 20% in 2005-06 to 11% in 2006-07.¹⁵

¹⁴ Since several MNCs are also actively involved in cottonseed production in Andhra Pradesh where children are employed on a large-scale, the issue of child labour in this sector has received global attention. Various international NGOs and unions in Europe and USA have started campaigning against the role of MNCs in encouraging the problem of child labour in cottonseed production. The campaign was first taken up in 2002 by the Dutch organisations India Committee of the Netherlands (ICN), Amnesty International Netherlands, NOVIB/Oxfam Netherlands and the Federation of Netherlands Trade Unions (FNV) with regard to both Unilever and Advanta which have their headquarters situated in The Netherlands. Though the activities started in 2002 with a visit to Unilever, a campaign started in 2003 with the publication of a detailed report by ICN focusing on the role of MNCs in contributing to the problem of child labour in cottonseed production in Andhra Pradesh. The ICN report stimulated several organisations in other countries like UK, Germany and the USA to join the campaign as well. In the UK Anti Slavery Society took up the issue with Unilever. In Germany, the Coalition against Bayer-Dangers, Germanwatch and the Global March Against Child Labour took up the issue with Bayer. In the USA, the International Labour Rights Forum (ILRF) and the International Center on Child Labour and Education (ICCLE) took up the issue with Monsanto. The international campaign gained momentum in 2003, mainly through publicity in national and international written media, correspondence and dialogues with companies and pressure by social investors and public opinion, putting MNCs under severe pressure to initiate steps to address the problem of child labour.

¹⁵ For more details on impact of interventions by Bayer and Monsanto on the elimination of child labour in hybrid cottonseed farms in Andhra Pradesh see the recent report '*Seeds of Change: Impact of interventions by Bayer and Monsanto on the elimination of child labour on farms producing hybrid cottonseed in India*' by the author of the present study published in June 2007 (for full report see: <http://www.indianet.nl/pb070608.html>)

Table 5: Trends in workforce composition in cottonseed farms in AP

	2003-04	2006-07
Total number of farms surveyed (area in acres)	174 (264 acres)	280 (414 acres)
Total number of workers engaged during cross pollination activity	2709	4264
Type of labour (family vs hired)		
% of family labour to total labour	20.1% (544)	21.8% (930)
% of hired labour to total labour	79.9 % (2,165)	78.2% (3,334)
Hired labour (local vs migrant)		
% migrant labour to total hired labour		17.4% (580)
% local labour to hired labour		82.6% (2,754)
Age group and gender composition		
% Children (below 14 years) to total workforce	57.4% (1,556)	42.7 % (1,820)
% of girls to total children	75.8 % (1,180)	73.6% (1,339)
% children (15-18 age group) to total workforce		34.8% (1,484)
% girls to total children (15-18 age group)		72.2% (1,072)
% adults (above 18 years) to total workforce		22.5 % (960)
Average number of children (below 14 age) per acre	5.9	4.4
Average number of children (15-18 years) per acre		3.6

- Regarding terms and conditions of employment there has not been much change since 2003-04. A large proportion of children continue to be employed on a long-term contract basis through loans/advances to their parents. The proportion of children employed by paying advances and loans to their parents has slightly decreased from about 70% in 2003-04 to 62% in 2006-07.
- The incidents of the brutal rape and killing of two minor girls employed on cottonseed farms in 2006 and death of three children due to pesticide poisoning in 2004 in Kurnool district clearly indicates that the conditions at work continue to be very unsafe and exploitative for the children (see case studies in Box). The working conditions of migrant children in particular are pitiable. They are housed in the verandahs of farmers, or have a

small bed a in a dark corner, fed just enough to keep them working, day in and day out. They reach the farm by 6:00 in the morning, and return only after it gets dark. The smell of pesticides and the scorching heat cause headaches, vomiting, giddiness and mental depression about which they cannot even complain until it poses a life-threatening risk. The employers also often resort to verbal abuse and physical violence to make the children work according to their instructions. The nature of verbal violence includes: threats of physical violence, threats to dismiss from work, threats to make the children work longer and threats to withhold wages. Beating of children if they fail to do work properly is also not uncommon.

- Compared to 2003-04, there was an increase in the wage rates paid to both children and adult labour in 2006-07. The average daily wage rate paid to the children in Mahaboobnagar and Rangareddy districts has increased from Rs. 20 in 2003-04 to Rs. 24 in 2006-07. Compared to the average daily wage rates paid to adult women this is about 25% less. In Nandhyala area in Kurnool district, wage rates are calculated on a monthly basis. During 2003-04 the monthly wage rate paid to child labourers varied between Rs. 800 to Rs. 1200 (for 12 to 13 hours of work per day) depending upon their age and experience. This has increased to Rs. 1000 to 1500 per month in 2006-07. The wage rates paid adult labourers witnessed 20 to 30% increase since 2003-04. The increase in wage rates was largely due to the introduction of National Rural Employment Guarantee Scheme by Government of India which ensures 100 days of employment for each person against official minimum wages which is significantly higher than local market wages.
- The change of government in the state in 2004 had some negative impact and has slowed down the ongoing efforts of the government to eliminate the child labour in the state. The pro-farmer attitude of the present Congress government in the state put the Labour Department under pressure to act very cautiously with regard to booking cases against farmers who violate child labour and other labour laws. The number of cases booked by the Labour Department on cottonseed growers for employing children has drastically decreased during the last three years. Cottonseed farmers in some places are taking advantage of new government's farmer-friendly attitude to hide their irregularities. They are even going to the extent of threatening the local authorities who came to inspect their fields stating that they are in deep financial trouble and if they book cases against them for violating the child labour law, they would have no other alternative than committing suicide. Local politicians are also putting pressure on authorities not to book any cases against farmers on child labour issues.
- The small decline in proportion of children to the total workforce and average number of children employed per acre on cottonseed farms in the state can be attributed to cumulative impact initiatives against child labour by the government, local NGOs, the seed industry and UN agencies.

- The issue of child labour on cottonseed farms has received attention from local NGOs working on child rights issues. Among local NGOs, the contribution of MV Foundation (MVF)¹⁶ to the issue of child labour in general and cottonseed sector in particular is very significant. The exploitation of child labour in cottonseed fields was first brought to light in 1998 by this organisation in Parigi, Pudur, Kulkacharla and Doma mandals of Rangareddy district, where cottonseed production is concentrated. MVF, with the support of the local community, initiated a massive campaign against the employment of children. Especially in 2003 and 2004, the MV Foundation spread its activities to Kurnool and Mahaboobnagar districts, the main centres for cottonseed production. Hundreds of girl children working in cottonseed fields were withdrawn from work and were sent to schools. Special bridge course camps for older (10-14 years) girls are being conducted to bring them into the fold of mainstream school education. In January 2004, with the help of the district administration in Kurnool, MV Foundation launched a district wide massive campaign against child labour. The issue of child labour in cottonseed production received special attention in this campaign because there is a high concentration of cottonseed production in this district. With the support of MV Foundation, the local youth and other people concerned with child rights formed a separate organisation called the 'Child Rights Protection Forum' (CRPF) in 2004 and since then, the members of CRPF in Kurnool and Mahaboobnagar districts have been actively campaigning against violations of child rights in general and in the cottonseed sector in particular. The CRPF members were actively involved in highlighting the incidents of rape and killing of two minor girls working on cottonseed farms in 2006 and the deaths of three children due to pesticide poisoning in 2004 in Kurnool district.
- Both UNICEF and ILO-IPEC paid special attention to the problem of child labour in cottonseed farms in Andhra Pradesh. Since 2005, UNICEF with the support of IKEA, and ILO-IPEC with the support of DFID UK, have been implementing special projects in collaboration with Andhra Pradesh government to address the problem of child labour in Kurnool and Mahaboobnagar districts where cottonseed production is concentrated in Andhra Pradesh. Under the UNICEF project, 139 villages in five mandals in Kurnool

¹⁶ The MV Foundation, based in the state of Andhra Pradesh, Southern India, has done pioneering work on the issue of child labour. It has developed a unique and powerful approach to address the twin problems of child labour and lack of access to full time education. MV Foundation works with the basic understanding that 'Any child out of school is a child labourer' and the only way to eliminate child labour is through full formal education. A set of interlinked strategies have been implemented to liberate children and to enrol them into schools. As part of its overall strategy, MVF mobilises all those concerned with the process of withdrawing children from work and enrolling them in schools: parents, teachers, youth, employers, women's groups, elected representatives and the children themselves. This massive mobilisation effort is done with a view towards transforming attitudes and creating an environment that is supportive of children's education. Motivation centres have been established at villages which serve as the nerve centre to bring working children into school. Bridge courses, camps and residential programmes are conducted as part of a process to encourage children to attend schools. The success of the MVF model can be gauged by the fact that since 1991 up to now the Foundation has worked in over 4,330 villages. In 1,500 of these villages, every child in the age group of 5-11 is attending full time school. In 600 villages all children up to 14 are attending school. Nearly 250,000 children have been enrolled and retained in schools, while more than 7,000 bonded labourers have been released.

namely Gonegandla, Nandavaram, Kosigi, Manthralayam and Peddakadubur are covered. The activities covered under the UNICEF supported project include community motivation and mobilization against child labour, improving the quality of education in government schools, running short term bridge course centres for working children and mainstreaming them in schools. In Gonegandla mandal where the present study has done survey noted that the activities of UNICEF supported project had some positive impact on children working on cottonseed farms in this mandal. Compared to 2003-04, the incidence of children (below 14 years) to the total workforce has slightly declined. The proportion of children to the total workforce declined from 61% in 2003-04 to 42.7% in 2006-07. The employment of children below 10 years showed significant decline from nearly 20% of the total child labour force in 2003-04 to 8.5% in 2006-07¹⁷.

- ILO-IPEC has been implementing a special state based project for combating of child labour in Andhra Pradesh since 2000. In the first phase (2000-2003) the project aimed at tackling child labour in the state by working closely with the government, employers, social organisations, NGOs and trade unions. As part of its project, ILO-IPEC brought together various trade unions and employers associations on a common platform to work against child labour. With a special focus on girl child labour in hybrid cottonseed production ILO-IPEC has implemented a pilot project during 2002-2003 in two mandals of Mahaboobnagar district namely Maldakal and Tadur. In the second phase of the project which began in 2005 three districts namely Kurnool, Mahaboobnagar and Hyderabad districts are covered. In Kurnool and Mahaboobnagar districts the project designed to cover all the areas with a budget of nearly Rs. 200 millions, out of which ILO's contribution is Rs 20 millions and Andhra Pradesh government's contribution is Rs.180 millions. In Kurnool and Mahaboobnagar districts this project run into trouble due to unwillingness on the part of state government to contribute its share of Rs. 200 million towards the project¹⁸.

¹⁷ According to data provided by district administration, Kurnool, the UNICEF supported project helped to mainstream 4877 children directly and 2436 children through bridge course into formal education, and improving the quality of learning in 70 government schools in Gonegandla, Nandavaram, Kosigi, Manthralayam and Peddakadubur mandals where project is being implemented. The number of out of school children dropped from 10561 in 2005 to 5677 in 2007 (source: SSA (Sarva Siksha Abhiyan), Kurnool).

¹⁸ 'Child labour project wound up in Kurnool district' The Hindu, 6-10-2006

(<http://www.hinduonnet.com/thehindu/thscrip/print.pl?file=2006100607750300.htm&date=2006/10/06/&prd=th&>)

Murder of two girls working in cotton seed farm in R. Pampally village, Kurnool district

The lethargy of the government in preventing the smuggling of children violating all the laws resulted in the death of two innocent children. Doodekula Subbarayudu, a cottonseed farmer producing seed for 'Raasi,' one of the leading seed companies in India, in R. Pampally village, Uyyalawada Mandal, Kurnool district, brought young children from Gudur Mandal to do cross pollination in his farms against an advance of Rs. 1000 given to their parents during summer. Of these children, 12 year old Shyamala and her 14 year old sister, Yoshoda, were found missing on 7th October 2006 late in the night and found dead on the morning of 8th October. These girls were among the other 500 children who have descended in the Uyyalavada mandal. Until the post mortem report is given the cause of death would remain unestablished. Chinnashalu, one of the workers in the cotton seed farm along with his gang raped Shyamala on October 7th, in the late hours. After gang raping her, all of them together killed Syamala and Yasoda.

In this season the village R.Pamapalli alone 120 farmers, have started to grow hybrid cotton seeds many of them with holdings not more than 2-3 acres – in over 530 acres. Each acre absorbs 5-6 girls per acre and in peak season there are even more. Thus, 2500 children would be working in just one village to produce the seed that will eventually clothe all of us. Ironically, the data of the Mandal Education Officer for this village shows that every child is in school and that the recent ILO supported program shows only one child laborer.

In spite of repeated protests and complaints against such gross violation of children's rights the practice of engaging children in production of hybrid cotton seeds continues. Huge profits are made by the national, as well as multi-national, seed companies by exploiting young girls and boys who begin to sweat and toil from six years of age onwards.

CRPC members across the district reacted to the incident and staged dharnas all over the district. Students' unions, trade unions, NGOs, mass organisations and all the other concerned groups joined CRPF. Following the event, the culprits were caught and the district Collector and Magistrate ordered to raid the seed farms and book the culprits of law.

After this incident had come to the notice of the authorities, the District Collector and the S.P. visited the village, announced Rs.one Lakh to the family and promised their brother, who is also working on the same farm, a job in a nearby cement factory. The women's groups have decided to send all children back to their respective villages. In a way, the reactions have been to view this particular incident as a stand alone unfortunate incident to be tackled at the level of the particular village and family of the children. There is just no attempt to see it as a pervasive issue affecting the lives of thousands of children year after year.

(Source: MV Foundation)

Poisonous Pesticides take the lives three children

On June 29, 2004, Mallesh a 13 year old boy, died due to pesticide exposure in a Dudekonda village in Kurnool district. Mallesh was employed as a bonded labourer and apart from doing other operations on the cottonseed farm of his employer, he was also entrusted with the task of spraying pesticides on the field. Indiscriminate use of chemical pesticides in cottonseed cultivation is occurring unabated and it is causing a lot of health problems to the children working in the fields, who are directly exposed to pesticides during the cross-pollination work. Children stand in the fields of cotton plants, which reach up to their shoulders, and bend over them as they identify flowers ready for pollination. The elder boys are also occasionally entrusted the task of actual spraying the pesticides. In the course of doing this work, the children are exposed to pesticides for prolonged hours in a day. A couple of days later, two more children, Paramesh and Bhoolakshmi, eight and twelve years old respectively, also died of pesticide exposure on 3rd July in Rampur village, Kurnool district. These incidences are not the first of their kind. Several children have fallen victims in the past to pesticide exposure. Unfortunately, these kinds of incidents generally go unreported.

KARNATAKA

Karnataka is the fourth largest state in India in cottonseed production. Compared to other states, the public sector seed corporation is very active and competing with private seed companies in production and marketing of cottonseeds. In 2006-07, nearly 5,000 acres was under cottonseed production in the state, out of which 3200 acres (64%) was controlled by Karnataka State Seed Development Corporation. In Karnataka, cottonseed production is concentrated in five districts namely Raichur, Koppal, Gadag, Baghalkot and Kollar. These five districts account for over 90% of the cottonseed production in the state.

A study carried out by the same author in 2004 estimated the total number children employed cottonseed farms in Karnataka in 2003-04 as 28000 out of which 88% were girls. The proportion of children to the total workforce was estimated as 67% and average number of children employed per acre was 6.7 persons. To capture the recent trends in employment of child labour in the state we present the results of the field survey carried out in 2006-07 below and compare them with the above mentioned study done in 2004

In Karnataka, the field survey was conducted in 40 sample farms in 12 villages located Ron Taluk in Gadag district, Kanakagiri taluk in Koppal district, Chintamani taluk in Kolar district and Sadem taluk in Gulbarga district. Out of 40 farms, 18 were producing seed for the Karnataka State Seed Development Corporation and the remaining 22 were producing seed for private seed companies. Among private seed companies, 8 farms were producing seed for Raasi Seeds, 6 for JK Seeds and 8 for other small companies.

Important findings

- Table 6 presents the workforce composition in 40 sample farms surveyed in 2006-07. The total area covered by 40 sample farms is 45 acres and the average farm size is 1.12 acres.
- A total of 266 children in the age group of 7-14 years worked on these farms during peak cross pollination season. Children accounted for nearly 55.6% of the total workforce. Among child labourers 81% were girls. On an average 5.9 children were engaged per one acre of seed production. Compared to 2003-04, the proportion of children (below 14 years) to the total workforce and per acre employment of number of children has slightly declined. The proportion of child labour to the total workforce declined from 67.2% in 2003-04 to 55.6% in 2006-07.
- Children in the age group of 15 to 18 years account for 34% of the total labour force. In 2003-04, this age group of children accounted for only 21% of the total workforce.
- The work in cottonseed farms is largely carried out by hired labour. Of the total 478 workers engaged in working on these farms during cross pollination season, 376 of them (82.8%) were hired labourers and 102 were family labourers. Compared to 2003-04 there is not much change in the proportion of hired labour in the total workforce.
- The proportion of child labour to the total workforce was found higher in Gulberga and some parts of Koppal areas compared to Kolar and Gadag districts.
- Compared to 2003-04, there is a marginal increase of 10% to 14% in the wage rates paid to both children and adult labour in 2006-07.

Table 6: Trends in workforce composition in cottonseed farms in Karnataka

	2003-04	2006-07
Total number of farms surveyed (area in acres)	20 (30 acres)	40 (45 acres)
Total number of workers engaged during cross pollination activity	302	478
Type of labour (family vs hired)		
% of family labour to total labour	17.2% (52)	21.4% (102)
% of hired labour to total labour	82.8% (250)	78.6% (376)
Hired labour (local vs migrant)		
% migrant labour to total hired labour	8.8% (22)	7.5% (28)
% local labour to hired labour	91.2% (228)	92.5% (348)

Age group and gender composition		
% Children (below 14 years) to total workforce	67.2 % (203)	55.6% (266)
% of girls to total children	88.2 % (179)	81.2% (216)
% children (15-18 years) to total workforce	20.9 % (63)	33.9% (162)
% of girls to total children (15-18 years)	66.6 % (42)	72.8% (118)
Adults (above 18 years)	11.9 % (36)	10.5% (50)
Average no of children (below 14 years) per acre	6.7	5.9
Average no of children (15-18 years) per acre	2.1	3.6

Note: figures in brackets are absolute numbers

**'I was forced to leave school and join in cottonseed work'
(Narsamma, 11 years, cottonseed worker, Sedam taluk, Gulberga district, Karnataka state)**

Balamani (14 years) and Narsamma (11) are sisters. They belong to a scheduled caste family in a small village in Sadam taluk of Gulberga district in Karnataka state. Both sisters work on cottonseed fields for a migrant farmer who produces seeds for an Andhra based seed company.

Balamani and Narsamma both began cottonseed work in 2005. Their large family consists of their parents, grandmother, three younger brothers and two elder sisters. The two youngest boys attend school. One elder sister is married and now lives with her husband. Though their family owns four acres of land, their main source of income is agricultural wage work. To the detriment of the family, their father has a drinking problem and what wages he has, he spends mostly on alcohol. He also is not regularly employed.

In April of 2005, Balamani and Narsamma's parents needed extra income to provide for a sister's wedding. They took a loan of Rs. 4000 from a cottonseed farmer from the same village and sent the girls to work. Since then, they have been continuously working with that same farmer. The farm is three kilometers from their home, close enough for them to walk to work. Every day they leave their home at 7 am and return from the field at 7 pm. On the farm, both sisters perform with the task of cross-pollination work. They do this work every day about 9-10 hours from August to November. Rs 25 is paid as a daily wage rate.

Their employer is an affluent farmer who migrated from Andhra Pradesh for producing cottonseed cultivates cottonseeds in three to four acres and employs 30-40 children every year. Recruitment of children in cottonseed production through loans and advance payments is a common practice in this area. According to the farmer who employed Balamani and her sister **'We need secured labor to work in our fields throughout the season. Loans and advances will help us to make the parents to stick to their agreements. Once the initial loan or advance is repaid we further give additional loans or advances to parents to keep our agreement intact'**.

Balamani and Narsamma both work long hours in difficult conditions. Balamani says that "work in cottonseed fields is very hard and we often get tired. Our employer is a nice person. Unlike other employers he will not beat us. Some times he provides chocolates and biscuits to us with his own cost. Twice in a month he will take us to towns and show movies. Though he is a nice person, he often scolds us if we do not do work properly or finish the work in time."

Balamani never attended school and Narsamma had to leave school in third class in order to work on the farm. Despite the fact that Narsamma herself thinks her employer is a nice person, she is not happy about working for him. Occasionally, she misses school. She says "I was happy when I was studying. My parents forced me to discontinue my studies. Whenever I see children of my age who are going to school I get a feeling that I am missing something' .

TAMILNADU

Next to Gujarat and Andhra Pradesh, Tamilnadu is the largest cottonseed producing state in India. In Tamilnadu, cottonseed production is highly concentrated in Attu and Kalkurchi taluks of Salem district which accounts for nearly 90% of the total cottonseed produced in the state. The issue of child labour in cottonseed farms in Andhra Pradesh, Gujarat and Karnataka states in India has been widely reported. However, there is not much information available on the situation of child labour on cottonseed farms in Tamilnadu.

In 2006-07, nearly 9000 acres was under cottonseed production in the state, out of which nearly 50% (4400 acres) of the area was controlled by Raasi Seeds, one of the leading seed companies in India, based in Attur region of Tamilnadu state. The other important companies with production bases in Tamilnadu include Monsanto, Nuziveedu, JK Seeds, and Tulasi. Of the total 9000 acres under cottonseed production in 2006-07, Raasi produced seed in 4400 acres, Nuziveedu in 2500 acres, Monsanto and JK Seeds in 800 acres each.

Like in Gujarat the cottonseed production in Tamilnadu is largely dependent upon migrant labourers who come from Veelpuram, Velur, Theni, Kadalur, Perambalur and Tiruvannamalai areas of the same state. Migrant labour (both adults and children) constitute more than two thirds of total workforce. Migrant labourers are mostly engaged in cross pollination activity which is the vital task in cottonseed production. Unlike in Andhra Pradesh and Karnataka where the duration of cross pollination activity is extended up to 90 to 120 days, in Tamilnadu cross pollination activity is limited to 70-80 days. Crop season begins generally in the month of August with the sowing of seeds. Cross pollination work starts in October and continues until the end of December.

In Tamilnadu, the field survey was conducted in 50 sample farms in 12 villages located in Attur and Kalkurchi talukas of Salem district. Out of 50 farms surveyed, 22 were producing seed for Raasi, 12 each for Monsanto and Nuziveedu and 4 for Nath Bio Tech. Below we present important findings from the field survey.

Important findings

Table 7 presents details of workforce composition in 50 sample cottonseed farms (covering 47 acres) selected in 12 villages in Attur and Kalkurchi talukas of Salem district in Tamilnadu. A total of 436 workers were engaged in these farms during peak cross pollination season in 2006-07, out of which 85.3% (372) were hired labour while family labour accounted for 14.7% (64). Among hired labourers 82.8% were migrant labourers who come from Veelpuram, Velur, Theni, Kadalur, Perambalur and Tiruvannamalai areas of Tamilnadu.

Children in the age group of 7 to 14 years constitute 46.3% of the total workforce. Among children 60.5% of them were girls. On an average, 4.29 children were engaged per one acre of seed production. Workers in the age group of 15 to 18 years constitute 32.6% of the total workforce.

Table 7 : Workforce composition in cottonseed farms in Tamilnadu in 2006-07

Total number of farms surveyed (area in acres)	50 (47 acres)
Total number of workers engaged during cross pollination	436
Type of labour (family vs hired)	
% of family labour to total labour	14.7% (64)
% of hired labour to total labour	85.3% (372)
Hired labour (local vs migrant)	
% of migrant labour to total hired labour	82.8% (308)
% of local labour to hired labour	17.2% (64)
Age group and gender composition	
% of Children (below 14 years) to total workforce	46.3% (202)
% of girls to total children	58.4% (118)
% of children (15-18 years) to total workforce	32.6% (142)
% of girls to total children (15-18 years)	60.5 (86)
Adults (above 18 years)	21.1% (92)
Average number of children (below 14 years) employed per acre	4.3
Average number of children (15-18 years) employed per acre	3.0

Like in Gujarat, seed farmers are dependent upon middlemen/agents (labour contractors) for recruiting migrant labour. Before the season starts, seed farmers approach labour contractors, 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 15 to 30 days worth of wage payment. The per day wage rates are fixed in advance and the agreement lasts for one crop season. Workers, including children, are recruited this way by paying advance amounts. Advance amounts range from Rs. 1000 to 2000 per worker. Advances are paid two to three months before the crop season begins.

It is the responsibility of the labour contractor to identify the required number of labourers and see to it that they continuously work for the farmer for the entire agreement period. Each contractor mobilises 20 to 80 labourers and places them with different farmers. Farmers do not make any individual agreements with the labourers. They only interact with labour contractors, who in turn make agreements on behalf of the labourers. A substantial part of wages is withheld until the completion of the agreement period. The labour contractor receives commission from the farmers for arranging the labourers. In addition, the contractor also deducts 10-15% of the wage payment from each labourer as his commission charge.

The wage rates are fixed for the whole season at the time of the agreement itself. During 2006-07, the daily wage rates paid to labourers for cross pollination work in cottonseed farms varied between Rs. 50 and Rs. 60. This includes labour contractor's commission also. The labour contractors deduct Rs. 5 per day from each labourer and pay the remaining amount to them. In U Kalyanatham, Unattur, Saliyanagar where cottonseed production is highly concentrated, the wage rates are relatively high compared to other areas. Considering the long hours of work put in by workers in cottonseed farms the wage rates paid to them are low compared to wage rates in the local market. Except for the newly recruited children the wage rates paid for cross pollination are equal irrespective of their age and gender. Newly recruited children are paid Rs. 10 to 15 less than other workers.

For migrant labourers the agreement regarding working hours is vague and the cottonseed farmers are at their liberty to call upon the labourers to work without any fixed schedule or set hours. Since labourers live on the owners' farms, it is at the discretion of the farmers whenever their labour is needed. Labourers generally work for 10 to 12 hours a day with a two-hour break for meals. They begin work around 6 AM and end at 6 PM or 7PM.

Daily work schedule of a migrant child labour (Pariamal, 14 years)

Periamal, a 14 year old girl, has been working as a wage labourer on cottonseed farms since 2004. She belongs to a poor tribal family in a small village in Jawadu hills in Tiruvannamalai district. She has two elder sisters and one younger brother. Her family owns two acres of dry land but income from the land is insufficient and they primarily depend on wage labour. She studied up to fourth class and discontinued in 2002. In 2004, her mother took an advance of Rs 2000 from a labour contractor and sent Periamal and her elder sister Vannamali (16 years) to Unattur village in Attur area in Salem district to work in cottonseed farms. Since then Periamal and her sister have been migrating to Unattur for cottonseed every year. Several labourers from Periamal's village also migrate every year to Attur for about two to three months (during October and December months) to do cross-pollination activity in cottonseed farms.

The seed farmer who employed Periamal owns 8 acres of land out of which cottonseed was grown on 1.5 acres in 2006-07. He has been producing cottonseed for Raasi Seed Company since 2002. In 2006-07, he employed a total of 16 labourers including Periamal and her sister on his 1.5 acre cottonseed farm. All the 16 labourers are migrants from Tiruvannamalai. Out of the 16, 12 are women. Eight of them are children below 15 years of age. All the migrant workers were provided free accommodation and food by the farmer. A temporary hut was built on the farm itself for migrant workers to stay.

Periamal was entrusted with the task of cross pollination. Periamal's daily work schedule during cross-pollination season is as follows.

She wakes up at 5 AM to get ready by 6 AM to start work in the fields. She lives in her employer's farm house along with 15 other migrant workers. From 6 AM to 7.30 AM she works in the field removing flowers in female lines which were not emasculated in the previous day and collecting flowers from male plants for pollination. From 7.30 to 8.30 AM, a one hour break is given to cook food and have morning meal. From 8.30 to 12.30 AM, she is engaged in pollination activity. From 12.30 PM to 2 PM is the lunch break for workers. During this time she returns from the field, eats lunch and rests. From 2 PM to 6.30 PM, she is engaged in emasculation work. She returns from the field around 6.30 PM.

Periamal was paid Rs. 55 per day for her work. Her employer does not pay this amount directly to her. Instead, the labour contractor who arranged work for Periamal and her sister takes the amount from their employer and deducts Rs 5 towards his commission charges and pays the remaining amount to her father at the end of the season.

GUJARAT

Until the 1990s, Andhra Pradesh was the largest state in the production of hybrid cottonseeds in India. After the introduction of BT cotton in the early 2000s, the area under cottonseed production in Gujarat rapidly increased and now it has become the largest cottonseed producing state in India. Of the total area of 60,300 acres under cottonseed production in India in 2006-07, Gujarat state alone accounts for 25,400 acres (42%). In Gujarat, cottonseed production is concentrated in the northern part in four districts (namely Sabarkantha, Banaskantha, Mehasana and Gandhinagar) which account for nearly 90% of the total area under cottonseed production in the state.

All the major seed companies have production facilities in Gujarat. The total area under cottonseed production in the state has marginally declined from 26,000 acres in 2003-04 to 25,400 acres in 2006-07. Out of 25,400 acres in 2006-07, 24% of the area (6000 acres) was under the control of a single Indian based company called Nuziveedu seeds. The other important companies with production bases in Gujarat are Ankur (5000 acres), Vikram (2000 acres), Nath (2000 acres), Mahyco (1500 acres) and Vibha (800 acres).

The extent of the area using illegal official BT cotton is significant in Gujarat. Before the government of India approved the commercial release of BT cotton hybrids, a private seed company based in Gujarat developed local BT cotton hybrids through back crossing the BT gene with local hybrids and unofficially started marketing the seeds since the BT cotton hybrids of Mahyco Monsanto Bio Tech Limited (MMB) were costly (450 grams of packet seeds were sold for Rs 1600 until 2005-06). After the intervention of the central and state governments, MMB reduced the price of a 450 gram seed packet to Rs. 750 in 2006-2007. This encouraged many small companies, including some individual farmers, to enter into the production of illegal BT cotton hybrid seeds which led to a significant increase in the area under production of these seeds in the early 2000s. However, the area under illegal BT cotton hybrid seed production came down significantly after MMB reduced the price in 2006-07. In 2003-04, nearly 10,000 acres was under illegal BT cottonseed production in the state which has come down to 4000 to 5000 acres in 2006-07.

An important feature of cottonseed production in Gujarat state is that more than two thirds of the labour force engaged in cottonseed production is seasonal migrant labour (adults as well children) belonging to Scheduled Tribe (ST) communities coming from the southern part of Rajasthan (Dungapur, Udaypur and Khervad) and tribal pockets of Gujarat (Panchamaharaj, Sabarkantha and Santrapur). More than 50% of the migrant labourers are from Udaypur and Dungapur districts in Rajasthan. These two districts are perennially drought prone areas and are known for large-scale out migration of labourers to other areas in search of wage work.

The recruitment of migrant child and adult workers for work in cotton fields of North Gujarat is dependent upon an extensive network of agents, locally called '*mates*', in the tribal villages (Katiar 2006). The *mates* are local tribal villagers who have had an exposure to the 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 per day 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. Each *mate* mobilises around 20 to 100 labourers and places them with different farmers. Farmers do not make any individual agreements with the labourers and instead they only interact with *mates*, who in turn make agreements on behalf of the labourers. Final payments are settled at the end of the season. In the middle of the season, small amounts of money are given to the workers for their living expenses. The *mates*

receive a commission from the farmers for arranging the labourers. The mates earn a commission of Rs. 5 (equivalent to 10% of the wage amount) per day of employment per worker.

A study carried out by the author of the present study in 2004 estimates the total number children employed cottonseed farms in Gujarat in 2003-04 as 90,000, out of which 60% are girls. Hired labourers account for 86.5% of the total workforce. Among hired labour, migrant labour, both adult and children, account for 82.5%. The proportion of children (below 14 years) to the total workforce was estimated as 35% and the average number of children employed per acre was 3.7 persons. Below we present the results of the most recent field survey carried out in 2006-07 and compare them with the 2004 study mentioned above.

In Gujarat, a field survey was conducted in 60 sample farms in 12 villages located in Idar and Khedbrahama taluks in Sabarkantha and Vijapur taluk in Mehasan. Out of 60 farms surveyed, 20 were producing seed for Nuziveedu Seeds, 12 each for Mahyco and Vikram, 8 for Vibha and 8 for other small companies.

Important findings

- Table 8 presents the details of age and gender division of workers engaged in 60 sample cottonseed farms surveyed in 2006-07. The total area covered by these 60 sample farms is 104 acres and the average farm size is 1.73 acres. Compared to 2003-04 there is not much change in the average size of farms (this was 1.8 acres in 2003-04).
- A total of 1,082 workers were engaged in these farms during peak cross pollination season in 2006-07, out of which 82.4% (892) were hired labour and family labour accounted for 17.6% (190). Among hired labourers 83.4% were migrant labourers belonged to ST communities coming from southern part of Rajasthan (Dungapur, Udaypur and Khervad) and tribal pockets of Gujarat (Panchmahal, Sabarkantha and Santrapur). Compared to 2003-04 there has not been much change in the proportion of hired labour and migrant labour to the total workforce. Hired labour accounted for 86.5% in 2003-04 and 82.4% in 2006-07. The proportion of migrant labour among hired workers remained almost same with 82.5% in 2003-04 and 83.4% in 2006-07.

Table 8 : Trends in workforce composition in cottonseed farms in Gujarat

	2003-04	2006-07
Total number of farms surveyed (area in acres)	20 (38 acres)	60 (104 acres)
Total number of workers engaged during cross pollination activity	384	1082
Type of labour (family vs hired)		
% of family labour to total labour	13.5 % (52)	17.6% (190)
% of hired labour to total labour	86.5 % (332)	82.4% (892)
Hired labour (local vs migrant)		
% of migrant labour to total hired labour	82.5 % (274)	83.4% 744
% of local labour to hired labour	17.5% (58)	16.6% (148)
Age group and gender composition		
% of Children (below 14 years) to total workforce	34.9 % (134)	32.7% (354)
% of girls to total children	59.7 % (80)	61.6% (218)
% of children (15-18 years) to total workforce	31.8 % (122)	33.4% (362)
% of girls to total children (15-18 years)	62.3 % (76)	56.9% (206)
Adults (above 18 years)	33.3 % (128)	33.8% (366)
Average number of child labour (below 14 age) employed per acre	3.5	3.4
Average number of child labour (15-18 years) employed per acre	3.2	3.5

Note: figures in brackets are absolute numbers

- Children in the age group of 7 to 14 years constitute 32.7% of the total workforce. Among them, 61.6% were girls. On an average, 3.5 children were engaged per one acre of seed production. Compared to 2003-04, there has not been any significant change in the proportion of children (below 14 years) to the total workforce and per acre employment of number of children. The proportion of child labour to the total workforce marginally declined from 34.9% in 2003-04 to 32.7% in 2006-07. The average number of children employed per acre remained almost the same from 3.7 persons in 2003-04 to 3.5 persons in 2006-07.

- With regard to the labour recruitment process and terms and conditions of employment there has not been any significant change since 2003-04, except a marginal increase in wage rates in some areas. The small increase in wage rates was largely due to pressure exerted by 'Dakshini Rajasthan Majdoor Union', a Union of mates and workers that seeks to improve working conditions, hike wage rates, and check employment of small children in cottonseed farms.
- The field survey findings of the present study are mostly in conformity with the findings of another survey conducted by Dakshini Rajasthan Majdoor Union (DRMU) in 2006. The Union set up 15 registration centers at border check posts with Gujarat from July 1 to August 15 2006 to track the movement of workers going from Rajasthan to Gujarat to work on cottonseed farms. The details age and gender composition workers were recorded by DRMU for 4010 workers. Of the total 4010 workers, 37% are below 14 years, 29% are in the age group of 15 to 18 and 34% are in above 18 years of age¹⁹.

¹⁹ Communication with Mr Sudhir Katiar who is actively associated with Dakshini Rajasthan Majdoor Union.

STORIES FROM MIGRANT CHILD WORKERS ON COTTONSEED FARMS IN GUJARAT

Sokra (14 years), Dungapur district, Rajasthan state

Sokra, a 14 year old boy, hailing from a small tribal village in Dungapur district in South Rajasthan, started working as a wage labourer in cottonseed farms in North Gujarat in 2004. Every year 20-25 children migrate to cottonseed work in Gujarat from his village. Rupalal, a 'mate'(labour contractor), belongs to same village and arranges work for these children. Sokra studied up to third class and discontinued in 2005. In 2005, his father took an advance of Rs 500 from Rupalal and sent Sokra to Gujarat to work in cottonseed farms. Since then, he has been migrating to Gujarat about two to three months per year to do cross pollination activity on cottonseed farms.

In 2006-07, Rupalal took Sokra and eight other children to a village near Idar town in Sabarkanth district in Gujarat state. Some children migrated along with their parents and some came on their own. The employer, who produces seed for Nuziveedu company, paid a Rs 15,000 advance to Rupalal in May for arranging 15 labourers for cross-pollination work in his 1.5 acre farm. Rupalal paid Rs 500 to Rs 800 to parents of the children and brought them for work. The employer provided a small jeep for the transportation of the labourers.

Sokra, along with 14 other labourers, were provided accommodation in a small shed on a cottonseed farm where the farmer kept fertilizers and pesticides. Sokra's daily routine begins with waking up early in the morning at 4 a.m. and getting ready by 5 a.m. to go to the fields. From 5 a.m to 7.30 a.m he works in the field removing type flowers in female lines which were not emasculated in the previous day and collecting flowers from male plants for pollination. From 7.30 to 8.30 a.m, one hour break is given to cook food and have morning meal. From 8.30 to 12.30 a.m, he is engaged in pollination activity. From 12.30 a.m to 2 p.m, lunch break is given. During this time he returns from the field, eats lunch and rests. From 2 p.m to 7 p.m, he is engaged in emasculation work. He returns from the field around 7 PM. He rests about half an hour after which, he prepares his dinner. After the meal he spends about half an hour chatting with other workers and goes to sleep around 9 p.m.

He was ill once during last working season. He experienced a severe headache and felt giddiness, which was not normal, while working in the field immediately after spraying pesticides. In the past, he has had mild headaches, particularly during the time when pesticides were sprayed in the field. He requested to rest for the day. About two days later, he was still not well and felt like going home. He requested that his 'mate' Rupalal give him some money and send him to his native village. His mate did not agree and suggested that he rest for a few days. The payments for the workers are settled at the end of the season. During the season, small amounts are given for their living expense. His 'mate' brought some medicines from local medical shop and gave it Sokra. It took five days for Sokra to recover and resume work. During this period he did not receive any payment.

Shanthilal Somabhai (12 years), Dungapur district, Rajasthan state

(Statement made by Shanthilal before National Commission for Child Rights during public hearing on child labour at Ahmadabad on 19-9-07)

I lived in Gudapida village, and grazed the family cattle. We used to go together, as a group of friends- Pravin, Ishu, Shankar and I, with the cattle on the village outskirts. During this time, we met one Kanubhai Gautambhai Kharadi, who told us about probable employment at the BT Cotton seed farms in Gujarat, and having convinced us, he took all three of us with him on the bus. We were brought by Kanubhai- a mate himself, to a farm in village Jasaali, Taluka Deodar, District Banaskaantha.

Our parents were unaware about this, and the mate did not care to inform them. No advance money was given to any of us. However, we were at the farm for about a month, where we worked to cross-pollinate cotton flowers. We were harassed by the farm owner, beaten and confined so that neither could we purchase rations nor were we provided with enough food-stuff. Further, no payment was made during the whole month. Frustrated and tired, all three of us abandoned work one day, and fled on foot, from Deodar to Himmatnagar town (a distance of 200 kms), from where we returned home, traveling on trucks. The journey back took us three days. We went without food for most of this period.

SECTION - IV

ESTIMATES OF THE MAGNITUDE OF CHILD LABOUR IN COTTONSEED FARMS IN DIFFERENT STATES

In the previous section, we presented the findings of the survey of sample cottonseed farms in different states. In the present section, an attempt is made to estimate the approximate total number of children employed in total cottonseed production area in different states for 2006-07 and compare these results with 2003-04. The estimates of the total number of children employed in cottonseed farms for the 2003-04 year for Andhra Pradesh, Gujarat and Karnataka are taken from the author's previous studies published in 2004. The total number of child labourers in cottonseed production for the 2003-04 crop season were estimated for each state separately on the basis of per acre average requirement of labour and the proportion of child labour to the total work force in the sampled farms. This was done by extrapolating the sample proportions to the total area under cottonseed production in different states. Using a similar methodology, the total number of children employed in cottonseed farms are estimated for 2006-07 for different states.

Table 9: Estimates of approximate total number of children employed in hybrid cottonseed farms in different sates in India for 2003-04 and 2006-07

State	2003-04			2006-07		
	Total area under production (acres)	Total number of children employed (below 14 years)	Total number of children employed (15-18 years)	Total area under production (acres)	Total number of children employed (below 14 years)	Total number of children employed (15-18 years)
Andhra Pradesh	14,000	82,875	NA	16,000	70,400	57,600
Gujarat	26,000	91,000	83,200	25,400	86,360	88,900
Karnataka	4,000	26,800	8,400	5,000	29,500	18,000
Tamilnadu	NA	NA	NA	9,000	38,700	27,000
Total	44,000	2,00,675		55,400	2,24,960	191,500

Note: The estimates of total number of children employed in cottonseed farms for 2003-04 year are taken from the author's previous studies published in 2004. The total number of child labourers in cottonseed production for the 2003-04 crop season was estimated for each state separately on the basis of per acre average requirement of labour and proportion of child labour to total work force in the sampled farms by extrapolating the sample proportions to total area under cottonseed production in different states. Using similar methodology the total number of child labourers was estimated for 2006-07 for different states. For estimating the per acre average requirement of labourers and children's proportion to total workforce, a detailed survey of 280 farms in AP, 60 farms in Gujarat, 50 farms in Tamilnadu and 40 farms in Karnataka was undertaken in 2006-07.

Table 9 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 and 2006-07. With regard to Tamilnadu, the estimates are presented only for 2006-07 as there is no data available for this state for 2003-04.

The trends in employment of child labour in different states clearly indicate that there has been very little change with regard to the magnitude of child labour numbers since 2003-04. Except a small decline in Andhra Pradesh, the total number of children employed in cottonseed farms in other states either remained almost stagnant or increased. In Andhra Pradesh, a total of 128,000 children were employed in cottonseed farms in 2006-07, out of which 70,400 are below 14 years and 57,400 are in the 15 to 18 age group. Though there has been a small increase of 14% in total area (from 14,000 to 16,000 acres) under cottonseed production over the period 2003-04 – 2006-07 the total number of children (below 14 years) employed declined by 15% (from 82,875 to 70,400).

With regard to Gujarat, though the total area under cottonseed production has slightly declined from 26,000 acres in 2003-04 to 25,400 in 2006-07, the total number of children employed in cottonseed farms remained almost same from 174,200 in 2003-04 to 175,260 in 2006-07. While there is a small decline 5% in total number of below 14 age group children (from 91,000 in 2003-04 to 86,360 in 2006-07), the number of children in 15 -18 age group increased by 6.8% (from 83,200 to 88,900) during this period.

In Karnataka state, the total area under cottonseed production increased by 25% between 2003-04 and 2006-07 (4000 acres in 2003-04 to 5,000 acres in 2006-07). The total number of children employed also increased by 38% during this period (from 34,400 in 2003-04 to 47,500 in 2006-07). The major increase is in the number of children in the 15-18 age group. While there has been an increase of 13.5% in numbers of below 14 year age group (26,000 in 2003-04 to 29,500 in 2006-07), 15-18 year age group numbers increased by 114% (from 8,400 in 2003-04 to 18,000 in 2006-07).

A total of 65,700 children were employed in cottonseed farms during 2006-07 in Tamilnadu, out of which 38,700 are below 14 year age group and remaining 27,000 are in the age group of 15-18 years. Though there is no comparable data available this state for 2003-04 the discussions with workers, growers and seed company personnel indicate that the total area under cottonseed production as well as the number of children employed has increased in recent years after the introduction of BT cotton. The Tamilnadu based seed company Raasi, whose BT cotton hybrids became very popular among growers, has recently increased its production area in many states including Tamilnadu.

CONCLUDING REMARKS

The recent trends in employment of child labour in hybrid cottonseed production in different states in India clearly indicate that the overall number of children employed in this sector is on the rise. This is due to an increase in the total area under cottonseed production in the country. After the introduction of BT cotton in 2002, the demand for BT cotton hybrids has substantially increased. Several leading seed companies in India sublicensed BT gene from Monsanto and converted their proprietary cotton hybrids into BT cotton hybrids. As the demand for BT cotton increased, the area under BT cottonseeds also increased resulting in an additional demand for labour for production of seeds.

In 2006-07, a total of around 416,460 children, out of which 2,24,960 are below 14 years and 1,91,500 are in 15-18 year age group, were employed in cottonseed farms in Gujarat, Andhra Pradesh, Tamilnadu and Karnataka states which account for nearly 92% of the total production area in the country. Gujarat, which has the largest cottonseed production area in the country accounts for nearly 175,260 (42%) of the total children employed in this sector, out of which 86,360 children are below 14 years and the remaining 88,900 are in 15-18 year age group.

The response of state and central governments to address the problem of child labour in this sector has not been very encouraging. In the early 2000s, the government of Andhra Pradesh made some efforts to address the problem of child labour in general and child labour in cottonseed farms in particular by initiating measures like awareness campaigns, establishing residential/non-residential bridge course centres for child labourers, booking cases against seed farmers found using child labour, new policy documents on child labour recognizing the link between elimination of child labour and universalisation of education, draft legislation which ensures elimination of all forms of child labour making school education compulsory for all the children below 15 years) in the state etc (Venkateswarlu, D. 2004). The change of government in the state in 2004 had some negative impact and has slowed down the ongoing efforts of the government to eliminate the child labour in the state. The pro-farmer attitude of the present Congress government in the state put the Labour Department under pressure to act very cautiously with regard to booking cases against farmers who violate child labour and other labour laws. The number of cases booked by the Labour Department on cottonseed growers for employing children has drastically decreased during the last three years. The government has closed down the residential bridge course centres in some areas. In Gujarat, Karnataka and Tamilnadu, the response of state governments is very poor.

The issue of child labour in cottonseed production has received attention from NGOs particularly in Andhra Pradesh and recently in Gujarat. The exploitation of child labour in cottonseed fields was first brought into light in Andhra Pradesh in 1998 by the MV Foundation, based in the state of Andhra Pradesh, Southern India, which has been actively working on elimination all forms of child labour since 1991. In Rangareddy, Kurnool and Mahaboonagar districts, where cottonseed production is concentrated in Andhra Pradesh, MV Foundation, with the support of the local community, initiated a campaign against the

employment of children in the late 1990s. Hundreds of girl children working in cottonseed fields were withdrawn from work and were sent to schools. Special bridge course camps for older (10-14 years) girls were conducted to bring them into the fold of mainstream school education. MV Foundation also initiated a dialogue with local and multinational seed companies to seek their help to address the problem in the cottonseed sector as seed companies are also partly responsible for perpetuating problems in this sector. In A.P. a few other NGOs also have been actively involved in the campaign against child labour including child labour in cottonseed farms. Recently, a few NGOs in Gujarat and Rajasthan (DISHA, South Rajasthan Mazdoor Union) started active campaigning against the employment of child labour in cottonseed farms in Gujarat. Though the efforts made by these NGOs had some positive impact due to their limited coverage the impact on the overall situation is minimal.

The response from seed industry as a whole to address the problem of child labour in cottonseed industry has also not been very encouraging. The exploitation of child labour in cottonseed farms is linked to larger market forces. Several large-scale national and multinational seed companies, which produce and market the seeds, are involved in perpetuating the problem of child labour. The campaign initiated by local and international NGOs, social investor groups and the media has put seed companies, particularly multinationals, under severe pressure to pay serious attention to the problem. The role of the companies in perpetuating the problem of child labour in cottonseed production is being questioned. MNCs who claim they are committed to the highest standards of socially responsible business practices had to face criticism from national and international media and NGOs. As a result, several national and multinational companies acknowledged the problem of child labour in the seed industry and have recently come forward to initiate steps to address the problem.

The two major seed associations in India, the Association of Seed Industry (ASI)²⁰ and the Seedsmen Association of Andhra Pradesh,²¹ have passed resolutions in their annual general body meetings to proactively discourage directly and through its members the practice of child labour in hybrid seed production and further take effective steps along with other stakeholders towards eradication of this social evil from the hybrid seed production areas.

In 2003, ASI members initiated a dialogue with MV Foundation for a collaborative effort to address the child labour problem in cottonseed production problem in Andhra Pradesh. The discussions continued about a year and a joint action plan was prepared. When it came to implementation of the joint action plan at field level, many of the ASI companies, mainly Indian companies, did not show any interest. Finally, only two companies, Bayer and Monsanto, have come forward to implement the action plan. Since 2005-06, both companies have been implementing an action plan which includes motivation campaigns, price incentives to the growers for not employing children, disincentives like black listing of farmers who are

²⁰ The Association of Seed Industry (ASI) is a national association of the planting seed industry in India. All the major MNCs namely Monsanto, Syngenta, Advanta, Proagro, and Pioneer are members of this association. The major Indian companies such as Mahyco, Raasi, Ankur and Nath Seeds are also members of this association

²¹ The Seedsmen Association of Andhra Pradesh, an organisation of seed producers is one of the members of CEASE Child Labour (Consortium of Employers Association for Elimination of Child Labour) formed in 2002 with the support of ILO-IPEC in Andhra Pradesh to mobilise employers against child labour.

found using child labour for future production. The initiatives undertaken by these companies had some positive impact in reducing the numbers of working children but due to limited coverage of their area their efforts have very minimal impact on the overall magnitude of child labour in the industry.

Unless the major seed companies like Nuziveedu, Raasi, Ankur, Mahyco, Tulasi, Nath, JK Seeds, Vikram and Kushidhan which control nearly 75% of cottonseed business in the country come forward, it is difficult to address the problem at an industry level. Despite knowing the problem very well, these companies are not paying any serious attention to the issue. Nuziveedu, Raasi, Ankur and Mahyco, the four major companies, together account for nearly 200,000 (48% of total child labour) children employed in cottonseed production in 2006-07, out of which 1,10,000 are below 14 years and 90,000 are in the 15-18 year age group.

The recent media reports on the situation of migrant child workers on cottonseed farms in Gujarat indicate that the situation is getting worse in this state. According to media reports, thousands of tribal children from south Rajasthan are being trafficked to Sabarkantha, Banaskantha and Mehshan districts of Gujarat to work of cottonseed farms²². The NGOs working on child rights issues in Gujarat and Rajasthan brought the issue to the notice of National Human Rights Commission (NHRC) and National Child Rights Commission. On September 3, 2007, the NHRC issued notices to the Chief Secretaries of Gujarat and Rajasthan and asked them to enquire into the issue and submit reports within four weeks²³. Taking a serious note of the issue, the chair person of National Child Rights Commission, Prof. Shantha Sinha personally visited Rajasthan and Gujarat in July and August 2007 and conducted public hearings on this issue.²⁴

The preliminary estimates of the area under cottonseed production for the 2007-08 season indicate that compared to 2006-07, the total area under cottonseed production in 2007-08 has increased by 15-20% in different states. This will further increase the demand for labour, including children, in this sector. The total number of children in cottonseed farms is likely to increase further during 2007-08 unless serious efforts are made to stop the employment of children at the field level.

²² 1) 'Childhood lost in Bt cotton farms' The Indian express 29-8-2007, <http://cities.expressindia.com/local-news/fullstory.php?newsid=253417>, 2) 'India : Bt cotton fields employ child labour', 30-8-2007 www.fibre2fashion.com (http://www.fibre2fashion.com/news/textile-news/newsdetails.aspx?news_id=40146, 3) 'Child labour in Gujarat Bt.cotton fields' 3-9-2007, <http://www.dailyindia.com/show/170807.php/Child-labour-on-in-Gujarat-Btcotton-fields>

²³ NHRC issues notices to Gujarat, Rajasthan over child-trafficking ' Times of India, 3-9-2007 http://timesofindia.indiatimes.com/India/NHRC_issues_notices_to_Gujarat_Rajasthan_over_child-trafficking/articleshow/2334980.cms

²⁴ <http://www.hindu.com/2007/08/05/stories/200708053530500.htm>