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PROJECTS

1

*Strengthening capacities through action*

## IBE COLLABORATIVE PROJECTS

*Strengthening capacities through action*

This new monograph series documents projects initiated and managed by local or national level institutions in diverse countries, which have been technically or academically assisted by the IBE. This first publication in the series describes a project coordinated by an NGO in India aimed at improving non-formal educational provision to out-of-school children in the State of Uttar Pradesh with the goal of successfully integrating them into the formal school system. The case study underlines the critical importance of ensuring that adequate structures and mechanisms are in place for curriculum design/development and teacher preparation in the pursuit of educational quality at any level.

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## SEEKING TO BRIDGE THE DIVIDE:

LINKING FORMAL AND NON-FORMAL  
EDUCATION IN UTTAR PRADESH,  
INDIA

**Bupinder Zutshi**

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# IBE COLLABORATIVE PROJECTS — 1

SEEKING TO BRIDGE THE DIVIDE  
LINKING FORMAL AND NON-FORMAL  
EDUCATION  
IN UTTAR PRADESH, INDIA

Bupinder Zutshi



INTERNATIONAL BUREAU OF EDUCATION

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# Preface

The mission of UNESCO's International Bureau of Education (IBE) is to strengthen capacity of UNESCO Member States in the management of curriculum change in the light of twenty-first century challenges. Within the framework of its mission, the IBE designs, coordinates or supports activities at international, regional and national levels.

This new monograph series seeks to document projects initiated and managed by governmental and non-governmental institutions at national or local levels, which are undertaken in collaboration with the IBE. The series will serve to disseminate both the challenges and successes of such projects, as a source of information and inspiration for similar initiatives in other countries and contexts. The present monograph describes an effort to bridge the gap between non-formal and formal education in a major Indian state.

In 2001, an Indian NGO, the Initiative for Social Change and Action (ISCA), requested support from the IBE for a project entitled "Teacher Training and Curriculum Development for Non-formal Education in Carpet-weaving and Glass-Bangle Making Areas in Uttar Pradesh, India". This project aimed to improve non-formal education programmes for working children, which have the long-term aim of integrating them into formal schools. Such programmes in India conducted under the National Child Labour Project have tended to be of an unsatisfactory standard, with little or no teacher preparation or systematic curriculum development, putting these children at an even greater disadvantage in their efforts to acquire an adequate basic education.

The goals of this project, which sought to bridge the gap between non-formal and formal education in the pursuit of improved educational quality, are relevant to the mission of the IBE as the UNESCO institute concerned with the development and reform of curricula at school level. Its concerns are central to the IBE's commitment to capacity-building in UNESCO Member States within the framework of the goals of the Education for All movement.

The teacher training and curriculum development activities which formed the core of the ISCA project appear to have had a positive impact on student performance, underlining the critical role of curriculum design and teacher preparation on student learning. It is to be hoped that these efforts may be sustained and strengthened and similar efforts undertaken in other States and districts of India seeking to combat child labour though improving both access and quality of basic education.

IBE is at the disposal of the world educational community to exchange on and explore possibilities for co-operation in other nationally generated projects for curriculum development.

Cecilia Braslavsky  
Director

# Introduction

In order to achieve the goal of Education For All, especially ‘the education of children in difficult circumstances’, UNESCO’s New Delhi Office and UNESCO’s International Bureau of Education, Geneva, have supported several activities in collaboration with the Initiative for Social Change and Action (ISCA, a Delhi-based non-governmental organization) in India. These activities and programmes provided technical and financial support for the identification of study materials/books and for the development of a non-formal education (NFE) curriculum to cover the minimum levels of learning for children enrolled in special NFE schools under the National Child Labour Project (NCLP) initiated by the Government of India. The project also supported appropriate training for the capacity-building of teachers and field officers associated with this activity.

The present report highlights the innovations undertaken through the project to support quality NFE programmes for children in difficult circumstances. The report provides significant inputs for policy-makers to address the issues of non-formal education in India, particularly for those children who have been integrated into the mainstream and are experiencing difficulties in the formal education system.

The project identified significant appropriate curricula based on minimum levels of learning (MLL) for the target groups. It also helped in developing area-specific teaching/learning materials for the target groups so as to make education a joyful and interactive experience. Teachers were provided with appropriate training so that classroom practice could be improved, with children participating and interacting freely. A non-formal education curriculum for street and working children has been developed, reflecting their experiences and life-skills requirements.

Documentation of the activities and programmes undertaken in this report will help in creating awareness about these innovations, so that they could be replicated in other districts of the country where the National Child Labour Project is in operation.

Significant contributions and ideas of immense value are acknowledged from the following persons, groups of people and organizations. Our sincere gratitude is extended to:

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- All non-governmental organizations, master trainers, teachers and other participants who were associated with the non-formal education programmes in these districts.



*Workshop in progress for development of NFE curriculum.*

# Context, objectives and project design

## Context

The global perspective of child labour as a violation of human rights has been expressed in the Convention on the Rights of the Child (CRC, 1989) by the United Nations General Assembly. The convention has been ratified by the majority of countries, including India.<sup>1</sup> In this convention, eradication of child labour and provision of compulsory education for all children were two of the major recommendations.

According to estimates provided by the International Labour Organization (ILO), the number of working children in the world aged between 5 and 14 years is at least 120 million. India, with a total population of more than 1 billion in 2001, has the largest population of these working children in the world.<sup>2</sup> Addressing child labour has become a major issue in India over the last two decades as the ILO bracketed India, along with certain other countries, for the sheer magnitude of the problem. This has led to certain fundamental changes in national laws, plans, policies and practices to bring them into line with the principles of the CRC.

In the United States, Senator Harkin's proposed Child Labour Deterrence Act introduced into the legislature on 5 August 1992, declared: 'The United States ought not to import any item, from any country, that is made by child labour.'<sup>3</sup> This drew the attention of the Government of India to the need to address urgently the issue of working children. German carpet importers have also threatened to boycott Indian hand-knotted carpets until they are satisfied that no child labour has been employed in their manufacture.

The presence of working children is a symptom of an exploitative structure, lopsided development and iniquitous resource ownership. Other parameters contributing to its presence in India are widespread unemployment, increasing urbanization, rapid population growth, extreme poverty, increasing disparities in wealth, cut-backs in the government's social and educational budgets, a high level of child abuse by parents/society and a breakdown of traditional family and community structures.<sup>4</sup> Migration from rural to urban areas has contributed significantly to an increase in the number of working children. Migrants go to cities in search of higher incomes and secure employment. However, they find work mainly in the unorganised or semi-organised low-paid sectors. Consequently, children are forced to earn a living to support themselves and their families.

In addition to these factors, child labour is also prevalent because of the inappropriate and inadequate educational facilities available in rural areas. Lack of education for the present generation of children is synonymous with educational deprivation for future generations. The National Sample Survey Organization of India (NSSO, 50<sup>th</sup> Round, 1993-1994 and 55<sup>th</sup> Round 1999-2000) has indicated that child labour has decreased between 1987 to 1999 due to higher school enrolments (see Table 1).



The positive correlation between school enrolment and the reduction in child labour indicates the crucial importance of education in breaking the existing vicious circle.

### The magnitude of out-of-school and working children in India

A UNESCO study<sup>5</sup> has indicated that an estimated 72 million Indian children, constituting 30% of children in the 5–14 age-group, were not attending educational institutions in 2000. This is also corroborated by the NSSO 55th round, 1999–2000,<sup>6</sup> figures which indicate that 32.3% of children from rural areas and 17.6% from urban areas aged 5–14 were not attending educational institutions. Similarly, 28.9% of rural and 15.2% of urban children aged 10–14 years were not attending educational institutions in 1999–2000.<sup>7</sup> However, a satisfactory note is that there has been a significant decline in the proportion of out-of-school children between 1987 and 1999 (see Table 1).

The statistics on the number of working children in India are inadequate.<sup>8</sup> The Census of India reported 11.28 million child workers, constituting 5.37% of the working population in 1991.<sup>9</sup> Estimates by the NSSO report (50th Round, 1993–94) also confirm that 5.78% of children (17 million children aged 5–14 years) were both principal and subsidiary workers in 1993–94.<sup>10</sup> NSSO figures have, however, shown a significant decline in child labour-force participation between 1993–94 and 1999–2000. This decline was more pronounced in the case of rural areas due to a high level of school enrolments within the Education for All Programme (*Sarva Shiksha Abhiyan*) (see Table 1).

TABLE 1. Child labour force participation and children not attending educational institutions, 1987–99

Age group	Period	Labour force participation (%)		Not attending educational institutions (%)	
		Rural	Urban	Rural	Urban
5–9	1987/88	2.3	0.4	75.1	29.8
	1993/94	1.3	0.5	38.2	17.8
	1999/2000	0.7	0.3	32.3	17.6
10–14	1987/88	18.8	7.9	46.9	23.8
	1993/94	14.7	5.8	34.7	16.0
	1999/2000	9.4	4.5	28.9	15.2

Source:

1. Government of India, *Sarvekshana*, Special issue on employment in India, September 1990, p. 188–93.
2. Government of India, *Key results on employment and unemployment*, March 1997, p. A-112–A-117. (NSSO report, no. 409.)
3. Government of India, *Employment and unemployment situation in India, 1999–2000*, Part I, May 2001, p. A-10–A-15. (NSSO report, no. 458.)

## Child labour eradication initiatives

Child labour has emerged as an increasingly important issue in the national context of India, especially after the promulgation of the Child Labour Act, 1986, and the Supreme Court ruling on child labour of December 1996. The Supreme Court decision gave impetus for immediate identification of children in hazardous occupations and their subsequent rehabilitation, including the provision of appropriate education for the released children. These directives pressurized the government to identify and release the children working in hazardous occupations throughout the country. Subsequently, a large number of working children were freed from these activities.

The government also initiated several action-oriented programmes to rehabilitate the children so as to prevent their re-entry into labour markets. Project-based action plans in the areas of high concentration of child labour have been introduced and implemented under the action plan of the National Child Labour Projects (NCLP). Some of the children released from hazardous occupations belong to an older age group and their immediate integration into formal schools was considered inappropriate, unless they were provided with catch-up courses in special non-formal education (NFE) schools so that they could attain the same level as children in formal schools. These orientation courses are provided through NFE in NCLP special schools throughout the country. The aim of such NFE special schools is to educate children up to class-five level through an accelerated three-year educational package. After three years of NFE education, it is intended that the children will be integrated into formal schools at Class VI level.

In these special schools, target children (children working in hazardous occupations, who had not yet reached 14 years of age) are to be enrolled. The scheme envisages non-formal education, vocational training, supplementary nutrition and regular health care, as well as stipends if the children have been withdrawn from prohibited employment. As far as possible, the provision of other benefits is also envisaged for these schoolchildren and their families from state government programmes via the district administration.

After completing three years of NFE in the NCLP special schools, all of these children are examined by the primary education department of the state or by the National Institute of Open Schooling (NOIS), New Delhi, with a view to enrolling them at Class VI level in formal schools. Their integration into formal schools has not been a smooth process as numerous children have either dropped out or have been “pushed out”<sup>11</sup> before completing the three years of NFE education or else their parents do not wish them to continue schooling after the NFE programme. Inappropriate teaching by the teachers has been identified as the main cause of drop-outs/push-outs. A study conducted by the author has indicated that only 55–60% of the children from these NFE special schools have continued their education in for-

mal schools.<sup>12</sup> Even after their enrolment in formal schools, these children are found to be at a disadvantage because the curriculum and textbooks they followed in the NFE schools during these primary levels are often at variance with those of the formal schools up to Class V level. They feel isolated or stigmatised because they have then to sit with younger children who have been integrated in the formal school from the beginning. The integrated children are usually of 13 to 14 years of age, compared to 9–11 years for the regular children. A scientific study needs to be conducted to analyse the process of integrating these children into regular classes. This study could also examine the achievement levels of these children compared to the regular children.

### The National Child Labour Project (NCLP)

The Government of India has implemented the NCLP in 100 districts throughout the country where there is a high concentration of child labour. A total of 4,002 special NFE schools under the NCLP have been approved (Table 2).

TABLE 2. Non-formal education special schools in India provided by the NCLP, 2002–03

State	Districts covered	Approved schools	No. of children approved	Actual number of schools functioning	Actual number of children covered
Andhra Pradesh	22	1,033	51,650	1,021	51,820
Bihar	3	85	6,500	84	6,216
Chattisgarh	5	139	9,900	98	5,128
Jharkhand	5	114	5,700	114	5,700
Karnataka	5	190	9,500	141	6,689
Madhya Pradesh	3	88	4,600	84	4,333
Maharashtra	2	74	3,700	69	3,570
Orissa	18	689	39,550	628	34,855
Rajasthan	6	180	9,000	161	8,050
Tamil Nadu	9	425	21,900	414	21,411
Uttar Pradesh	11	524	27,000	520	25,067
West Bengal	8	347	17,350	299	14,950
Punjab	3	107	5,350	107	5,350
Total	100	4,002	211,700	3,740	193,139

Source: Government of India, Ministry of Labour, *Annual report, 2002–2003*, New Delhi.

The National Human Rights Commission (NHRC) of India commissioned a study in 2000 on 'Evaluation and assessment of non-formal education in India—a case study of Mirzapur-Bhadhoi carpet-weaving belt and glass-bangle industry of Firozabad'.<sup>13</sup> The aim of the study was to evaluate and assess the non-formal education provided by these NCLP special NFE schools. The study covered the carpet-weaving districts of Mirzapur, Sant Ravidas Nagar, Allahabad and Varanasi and the glass-bangle making district of Firozabad in Uttar Pradesh.

One of the principal findings of the study indicated that the majority of teachers recruited for teaching in these NFE special schools do not have appropriate teaching skills due to a lack of proper training. Significantly, no separate budgets are specified in the NCLP programme for teacher training. The project had expected that the available government district educational training centres (DIETs) would provide the necessary training to the selected teachers, with contributions from other departments. But, in reality, no such training took place.

As a follow up to the NHRC report, the Initiative for Social Change and Action (ISCA, an NGO based in New Delhi) approached UNESCO (New Delhi) and UNESCO:IBE (Geneva) to support a teacher-training module and to identify a curriculum and study materials/textbooks covering the minimum levels of learning (MLL)<sup>14</sup> in the two areas of carpet-weaving and glass-bangle-making in Uttar Pradesh. The aim of the programme was to identify/develop an appropriate curriculum and teaching-learning materials that would cover the MLL that had been identified by the National Council of Educational Research and Training (NCERT) for the target groups.<sup>15</sup> The objective of the training was to provide appropriate upgrading for the teachers, with the participation of experts from NCERT, state centres for educational research and training (SCERTs), NIOS, universities and successful NGOs, so that the children in these special NFE schools could receive adequate teaching.

## Notes

1. The Government of India acceded to this convention on 11 December 1992. The Convention on the Rights of the Child enshrines as interdependent and indivisible the full range of civil, political, economic, social and cultural rights of all children that are vital to their survival, development, protection and participation in their societies. One of the tenets of the convention is that in all actions involving children, their best interests should be taken fully into account. Article 32 recognizes the right of children to be protected from work that threatens their health, education or development and enjoins States to set minimum ages for employment and to regulate working conditions.
2. International Labour Organization, *Child labour: targeting the intolerable*, Geneva, 1996.
3. As of December 2000, the Act had yet to find its way into the US statute books. But the mere threat of such a measure caused considerable panic within the carpet industry and India was under pressure to strictly implement the Child Labour Act of 1986.
4. Sheridan Bartlett, *Cities for children: children's rights, poverty and urban management*, p. 216–17, London, UNICEF/Earthscan Publications, 1999.
5. Bupinder Zutshi, *Education for street and working children in India*, New Delhi, Ministry of Human Resource Development/UNESCO/Indian National Commission for Co-operation with UNESCO, 2001.

6. National Sample Survey Organization, Government of India, conducts surveys on different themes. NSSO conducted surveys on 'Employment and unemployment in India' in 1987, 1993 and 1999. See: NSS Report no. 409, March 1997, p. A-112–A-117, Part I; NSS Report no. 458, May 2001, p. A-10–A-15.
7. Government of India, *Employment and unemployment situation in India, 1999–2000*, Part I, May 2001, p. A-10–A-15. (NSS Report no. 458.)
8. Information on children working in informal sectors, or attending school but who might also be working, is difficult to establish. The collection of reliable data regarding child labour is also limited by the fact that, officially, the activities undertaken by children in domestic and informal sectors are excluded from the work category, as it is difficult to assess the productive value of such labour. This explains why official child-labour figures are always at such variance with statistics quoted by non-governmental agencies.
9. Government of India, Ministry of Labour, *Annual report 2001–2002*, New Delhi.
10. Zutshi, op. cit.
11. Pushed out because of an inappropriate school environment and educational methodology.
12. Bupinder Zutshi, *Assessment of non-formal education in carpet-weaving areas*, New Delhi, REHA/SAACS, 1998.
13. Bupinder Zutshi, *Impact, community response and acceptance of non-formal education under the National Child Labour Project: a case study of carpet-weaving belt of Mirzapur-Bhadhoi and glass-bangle region of Ferozabad*, New Delhi, National Human Rights Commission of India, 2000.
14. Minimum levels of learning for different class levels identified by the National Council of Educational Research and Training. The majority of states within India's federal education system have adopted the curriculum and materials prepared by the NCERT for their schools.
15. NCERT is a national resource organization set up by the Government of India, with headquarters in New Delhi, to assist and advise the central and state governments on academic matters related to all levels of school education. NCERT undertakes programmes and activities in research, curriculum and textbook development, pre- and in-service training of teachers and teacher educators, extension, and international cooperation. It publishes a wide range of textbooks, workbooks, teachers' guides, supplementary readers, research reports. These are intended to serve as models to various agencies in states and union territories and are made available to state-level agencies for adoption and/or adaptation. The textbooks are published in English, Hindi and Urdu. NCERT interacts with international organizations, such as UNESCO, UNICEF, UNDP, UNFPA and the World Bank, to study specific educational problems and to arrange training programmes for personnel from developing countries. NCERT also acts as a major agency for implementing the bilateral cultural exchange programmes entered into by the Government of India with the governments of other countries in the fields of formal education and teacher education by sending delegations to study specific educational problems relevant to Indian requirements and by arranging training and study visits for scholars from other countries. Educational materials are exchanged with other countries.

## II. Study areas: background and profile

### Study area

Mirzapur-Bhadhoi, covering the districts of Mirzapur, Sant Ravidas Nagar, Varanasi and Allahabad in Uttar Pradesh, is the primary carpet-weaving area of India. It accounts for 85–90% of the total value of carpets exported by India and 75% of the total looms in India.<sup>1</sup> Similarly the glass-bangle industry of India is concentrated in and around the city of Firozabad in Uttar Pradesh, where virtually the entire national production takes place.<sup>2</sup>

Carpet-weaving and glass-bangle-making are second to agriculture as the most important economic activities in these two areas. Both carpet-weaving and the making of glass-bangles have been identified as hazardous occupations, according to the Child Labour Act (1986). Prior to the promulgation of the Child Labour Act, a large number of children were engaged in carpet-weaving and glass-bangle-making by the manufacturers/contractors with the objective of maximizing their profits. The process of withdrawing children from these industries was accelerated after the Supreme Court decision of 1996 on freeing children from hazardous occupations.

### Child-labour estimates in the carpet-weaving industry

There have been numerous estimates of the number of children working in the carpet-weaving industries. A 1985 survey found that, out of 230,000 carpet workers in Mirzapur-Bhadhoi, the number of children was estimated at around 75,000.<sup>3</sup> A study carried out by Juyal estimated the number of child workers to be around 150,000 in 1987.<sup>4</sup> Gupta confirms the figure of 150,000.<sup>5</sup>

A survey conducted by the National Council of Applied Economic Research (NCAER) in 1992 placed the total child-labour component in carpet-weaving at approximately 8% of the total workforce, out of which 4.4 % took place within the family unit. Hired child labour, including local as well as migratory children, was found to be around 3.6%. Another survey conducted by NCAER in 1994 showed that there had been a decline in the percentage of hired child labour, which was down to 2.4%.<sup>6</sup> An overview of child labour in carpet-weaving is given in Table 3.

A study initiated by the International Labour Organization (New Delhi) and conducted by the Centre for Operations Research and Training (CORT), Baroda, in 1993, indicated that there were 22% of child weavers in the industry. These estimates were based on a sample study conducted in 362 carpet-weaving enterprises located in fourteen villages. The study calculated 650,000 weavers in the areas based on Juyal's estimates and concluded an estimated '120,000 child weavers and approximately 130,000 children in the carpet industry' in the Mirzapur-Bhadhoi belt.<sup>7</sup>

Neera Burra (1995) had estimated 150,000 child weavers in the Mirzapur-Bhadhoi area.<sup>8</sup> This figure was quoted by the Supreme Court of India when delivering its historic directives in 1996 for the eradication of child labour in India.

A study conducted by the author in 1998 for the areas where NGOs are providing non-formal education in the carpet-weaving belt estimated that there were some 8% of child weavers.<sup>9</sup> Since the purpose of this particular study was to assess the non-formal education programme, the sample selected may not be an accurate reflection of child labour in carpet weaving, as this survey only covered those areas where NGOs were active. However, it does suggest that the proportion of child labour is definitely more than 8% in the carpet-weaving belt.

TABLE 3. Child labour estimates: carpet-weaving areas

Source	Year	Numbers of looms	Number of weavers	Number of child weavers	% children of total
Kanbargi	1985	na	230,000	75,000	33
Juyal	1987	na	na	150,000	na
Manju Gupta	1987	na	na	150,000	na
NCAER	1992	na	na	na	8
Juyal	1993	na	650,000	450,000	70
CORT	1993	na	600,000***	120,000	22
Burra	1995	na	na	150,000	na
Zutshi**	1998	na	na	na	8

\* na = not available

\*\* This study was conducted for looms located near the vicinity of NFE schools operated by NGOs for children working in carpet-weaving. Hence, the purpose was to identify the impact of NGOs in eradicating child labour. Therefore, this study may not be construed as depicting actual amounts of child labour in carpet-weaving for the entire area.

\*\*\* The survey assumed a total of 600,000 weavers in the carpet-weaving industry.

### Child labour estimates in the glass-bangle industry

There have been various estimates of employment and child labour in the glass-bangle industry in Firozabad. The Labour Bureau of the Indian Ministry of Labour stated that glass factories and potteries (including bangle-making) employed 20,000 to 25,000 workers in 1981, out of whom some 8,000 were children. For an overview of various estimates of child labour in the glass-bangle industry see Table 4.

CORT conducted a study in 1993 to estimate the magnitude of child workers in the glass-bangle industry. The study estimated 58,558 workers, of whom children range from 9,428 to 11,126.<sup>10</sup> However, these estimates do not seem to correspond to the census data and the out-of-school estimates proposed by the author.

TABLE 4. Child labour estimates –glass-bangle industry

Name of source	Year	Total workers	Adults	Children
Ministry of Labour <sup>i</sup>	1981	20,000–25,000	12,000–17,000	8,000
Neera Burra <sup>ii</sup>	1986	200,000	150,000	50,000
Debarish <sup>iii</sup>	1986	150,000	110,000	40,000
CORT <sup>iv</sup>	1993	58,558	49,130–47,432	9,428–11,126
Zutshi <sup>v</sup>	2001	na	na	17,127

*Sources:*

- I. Government of India, Ministry of Labour, Labour Bureau, *Report on child labour in Indian industries*, New Delhi, 1981.
- II. Neera Burra, *Born to work: child labour in India*, New Delhi, Oxford University Press, 1995.
- III. Debarish Chatterji, Child labour in the glass industry, Surya, India, in: Dingwaney, M. et al., eds., *Children of darkness: a manual on child labour in India*. New Delhi, Manjari Dingwaney for the Rural Labour Cell. 1988.
- IV. Sandhya Barge et al., Child labour in glass-bangle industry of Firozabad, Uttar Pradesh: an economic analysis, in: Centre for Operations Research and Training, ed., *Economics of child labour in hazardous industries*, Baroda, 1998.
- V. Potential child workers (working children and out-of-school children) have been estimated based on the projected child population in Firozabad. Other inputs considered for estimation include the percentage of child workers and the percentage out-of-school children recorded in 1991 by the Census. The percentage of child workers and the percentage of out-of-school children were assumed to have remained stable for 2001. Thus, the estimated figures are actually over-estimations of the actual figures as it is expected that the proportion of out-of school children will have been reduced and, at the same time, the proportion of working children will also come down compared to the figure recorded in 1991.

**Estimates of out-of-school children**

Estimates of the out-of-school children in the carpet-weaving and glass-bangle-making areas of Uttar Pradesh were presented in the National Human Rights Commission report (see Table 5).<sup>11</sup> About 700,000 children (aged 6–14 years) in carpet-weaving areas and 17,000 children (aged 6–14 years) in glass-bangle-making areas are out-of-school and a significant proportion of them are in the age-group 9–14 years. Enrolling children of higher age groups in the existing formal school is felt to be inappropriate without providing a preparatory period in non-formal education. Therefore, a number of non-formal special schools (sponsored by the central government, the state government, NGOs, international and other bilateral agencies) have been active in these two areas for the last fifteen years.



TABLE 5. Projected out-of-school children, July 2000.

Area	Projected child population 5–14 years	Children attending school	Child workers/marginal workers	Out-of school children
Carpet–weaving area	1,877,032	1,163,759	150,162	713,273
Glass-bangle area	85,631	68,504	6,850	17,127

*Sources:*

1. Population Projections, Census of India.
2. Census of India, 1991, Series –C1 (Social and Cultural tables) Uttar Pradesh.
3. Government of India, NSS Reports, 50th and 52nd Rounds, 1993-1994 and 1999-2000.

**Profile of out-of-school children**

The majority of out-of-school children are from families with no formal education background. The children are engaged in both domestic and non-domestic work, which may be for monetary or non-monetary benefits. Domestic activity includes caring for younger siblings, cooking, cleaning, washing, fetching water, etc. These tasks are mainly performed by girls.<sup>12</sup> Although domestic service need not be hazardous, children carrying out domestic chores may well be the most vulnerable and exploited, as they are difficult to protect due to the “invisible” nature of their work. These children remain excluded from basic elementary education. Children working in non-domestic activities spend a great deal of time looking after cattle and goats, collecting fodder, and scaring birds in fields. They gradually become involved in full-time agricultural work. Naturally, such children are deprived of schooling, play and social activity, which hamper their mental development and creativity. Children in this category, whether in agriculture, plantation or in cottage industries, are engaged either independently or as part of a family labour unit.

Wage labour is one of the major types of work activity for some children. Wage labour includes work in domestic service, cottage industries, manufacturing processes and other activities. Children work either as a part of the family unit or as wage earners. They are often employed in preference to adults because they are paid lower wages, are docile and pliable. Wages are paid on a piece-rate basis, greatly increasing the pressure to work faster. Hours of work are long.<sup>13</sup>

Because there is no tradition of formal education in the family and because the family depends upon the income from the children’s work, parents are reluctant to send their children to school. They feel that children are employed to supplement the family income and to help the family in traditional crafts, where it is important to acquire the necessary skills at an early age. They believe that it is futile to educate children, as the child will probably end up doing the same work after schooling. Hence, it is difficult to persuade parents to send their children to school. Usually some form of compensation or incentive is required to make them agree to educate their children.

## National Child Labour Project coverage

In the carpet-weaving areas, the NCLP special NFE schools are operated through NGOs and other voluntary organizations. About thirty NGOs are operating sixty-four NFE special schools with an approved enrolment of fifty children in each. In the case of the glass-bangle industry of Firozabad, the NFE schools are run either directly by the District Child Labour Project Society (thirty-one schools) or by NGOs (thirty-nine schools). Each NFE school in the glass-bangle area has an approved enrolment of 100 children (see Table 6). There are two regular teachers and one vocational education teacher working in schools in the carpet-weaving areas, and three regular teachers and one vocational education teacher appointed for each school in the glass-bangle areas.

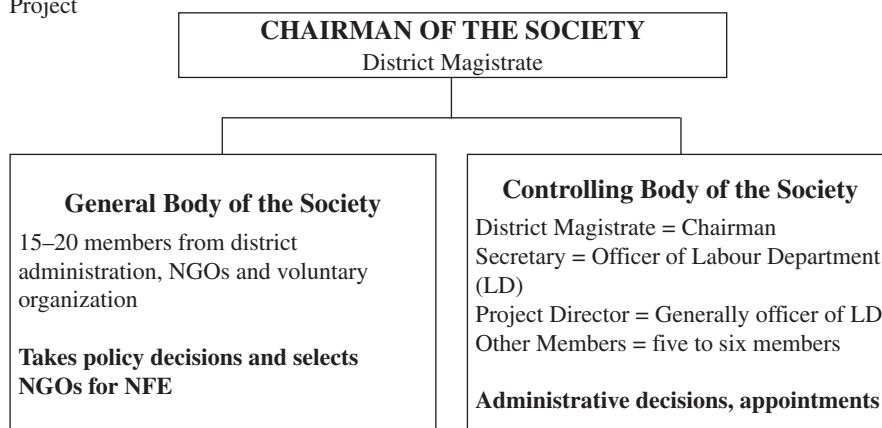
TABLE 6. NFE special schools under NCLP

Area	Number of NFE special schools	Total enrolment	Number of teachers
Carpet-weaving area	64	3,200	128
Glass-bangle area	70	6,500	310
Total	134	9,700	438

*Sources:* National Child Labour Project, Labour Department, Government of Uttar Pradesh, 2000.

The local District Child Labour Project Society oversees the administration of these schools. In a few cases, these societies administer the special schools themselves; otherwise, they select NGOs in the area to operate them. The structure of a typical District Child Labour Project Society is given in Figure 1.

FIGURE 1. Structure of a typical district project society under the National Child Labour Project



Project directors of the local District Child Labour Project Society are responsible for the administration and programme of the special schools. This person is usually an officer from the labour department of the district, who, in addition to his/her main job, oversees the special schools. Hence, in reality, the administration and educational programme of the special schools is vested with NGOs or the junior staff of labour departments, who may lack appropriate academic credentials for supervising these institutions.

A survey is usually undertaken by the NGOs/District Child Labour Project Society to identify out-of-school children so as to locate these schools in suitable places in both rural and urban areas. The majority of these schools use rented accommodation with two to three small rooms without furniture. Children are obliged to sit on the floors without any floor covering in the majority of cases. Facilities such as drinking water, toilets and adequate ventilation/heating arrangements are available in only a few schools.

### Human resources in NFE schools

The teachers are usually selected from the local areas. Due to the lower remuneration stipulated for the teachers under this programme compared to formal school-teachers, the majority of them are under-qualified. The results indicated that 59% of teachers were without any training at the time of the survey. Only 19% of teachers had received pre-service training, while 22% had undergone in-service training. Thus, the majority of the teachers lack proper academic credentials to identify appropriate MLL, curriculum and reading materials. Furthermore, teachers without training lack commitment and proper skills for educational guidance. Table 7 shows the qualifications that teachers possess in these special NFE schools.

At the same time, the training component in the NFE programmes has been lacking. Our survey showed that it was rare to find teachers who had been specially trained for such programmes.

TABLE 7. Teachers' educational level and training in NFE special schools under NCLP

District	Teachers' educational level (%)				Teacher-training level (%)		
	Up to 10-12	12-graduate	Beyond		Pre-service 12-graduate	In-service	No training
Allahabad	14	38	45	3	7	0	93
Bhadhoi	26	53	21	0	0	37	63
Mirzapur	12	27	52	9	12	0	88
Varanasi	15	35	35	15	8	18	74
Ferozabad	12	22	33	33	38	4	58
Total	14	31	38	17	19	22	59

Source: Zutshi, B. Impact, community, response and acceptance of non-formal education under the National Child Labour Project: a case study of carpet-weaving belt of Mizapur-Bhadhoi and glass banple region of Ferozabad. New Delhi, National Human Rights Commission of India, 2000.

## Project premise

In view of this situation, UNESCO (New Delhi) and UNESCO:IBE (Geneva) accepted the request by the ISCA and NCLP societies in the two areas to support an initiative to develop an appropriate NFE curriculum and to identify study materials/textbooks for these special NFE schools, covering the identified minimum levels of learning for the target groups. Requests were also accepted to prepare training manuals and to provide appropriate training for selected master trainees and teachers in these schools. Due to a lack of time and financial resources, the training was imparted to only nine master trainees and fifty-nine teachers out of a total of 128 teachers in the carpet-weaving areas, and sixty-six out of 310 teachers in the glass-bangle-making areas. However, some staff from the majority of the NFE special schools were trained from both areas to establish a wide base for the training (see Table 8). Priority was given to teachers without any prior training upgrades.

The respective District Child Labour Project Societies identified the trainee teachers, covering the majority of these schools. A significant proportion of female teachers received training.

TABLE 8. NCLP NFE special school teachers selected for training

Areas	No. of NFE schools	No. of teachers	NFE schools selected for training		Master trainers/ teachers selected for training	
			No.	%	No.	%
Carpet-weaving	64	128	40	62	68	53
Glass-bangle	70	310	42	60	68	22
Total	134	438	82	61	136	31

Source: ISCA project on teacher training and curriculum development, 2002.

## Notes

1. B.N. Juyal, *Child labour is the carpet industry in Mirzapur-Bhadohi*, New Delhi, ILO, 1993.
2. Glass-bangle-making is basically an Indian phenomenon. It has a symbolic significance in the social system of India. It is considered a bad omen if a female does not have bangles on her arm. On auspicious occasions like marriages there are special ceremonies when all the females in the family, relatives and friends wear their bangles. Frequently, the colour of the bangles is specific to certain ceremonies. And, of course, it is considered good taste if the colour of the dress and that of the bangles match. There is no direct competitor in India for bangles from Firozabad as production is confined to this one place.
3. Kanbargi, R., *Child labour in India: the carpet industry of Varanasi*, in: A. Bequele and J. Boyden, eds., *Combating child labour*, p. 93–108, Geneva, International Labour Office, 1988.
4. Juyal, op. cit.
5. M. Gupta, *Child labour in hazardous work in India: situation and policy experience*, New Delhi, ILO, 1989 (unpublished study).

6. National Council of Applied Economic Research, Child labour in the carpet industry, *Margin* (New Delhi), October-December 1994.
7. Richard Anker et al., Economics of child labour in India's carpet industry, in: Centre for Operations Research and Training, ed., *Economics of child labour in hazardous industries*, Baroda, 1998.
8. Neera Burra, *Born to work: child labour in India*, New Delhi, Oxford University Press, 1995.
9. Bupinder Zutshi, *An assessment of non-formal education in Mirzapur-Bhadhoi carpet-weaving belt*, New Delhi, South Asian Coalition on Child Servitude (SACCS) Project, 1998.
10. Sandhya Barge et al., Child labour in the glass-bangle industry of Firozabad-Uttar Pradesh: an economic analysis, in: Centre for Operations Research and Training, op. cit..
11. Bupinder Zutshi, *Impact, community response and acceptance of non-formal education under the National Child Labour Project: a case study of carpet-weaving belt of Mirzapur-Bhadhoi and glass-bangle region of Ferozabad*, New Delhi, National Human Rights Commission of India, 2000.
12. Ibid.
13. A. Bequele and W.E. Myers, *First things first in child labour; eliminating work detrimental to children*, p. 6-7, Geneva, UNICEF/ILO, 1985.
14. International Labour Organization, *Child labour: targeting the intolerable*, Geneva, 1996.



*Master trainees and teacher trainees attending a training session.*

# III. Project description

## Objectives

- To review the primary education curricula already developed by the Primary Education Department of Uttar Pradesh state, the Bal Adhikar Pariyojana (UNICEF-supported project) and the National Institute of Open Schooling for children enrolled in the non-formal education (NFE) special schools in the carpet-weaving and glass-bangle areas.
- To develop and prepare a module for a teachers' guide and a training manual for NFE teachers of National Child Labour Projects in Uttar Pradesh.
- To bring together selected non-trained instructors/teachers involved in the NFE programme in the area and to provide them with appropriate training modules and initial training by experts and master trainers.
- To train the personnel of non-governmental organizations (NGOs) involved in NFE programme in the area, in the employment of appropriate techniques and methodologies for the successful implementation of non-formal education programmes.
- To monitor the trained teachers in their schools and to provide technical and academic support for effective classroom practice.
- To conduct evaluation studies of the teachers by testing the outcomes of the imparted training modules through carrying out achievement-level tests on their students after an interval of four to six months.

## Project design

In order to achieve these objectives, the project was carried out in four phases.

**Phase I: Workshops.** Organization of two two-day workshops in New Delhi (one each for the carpet-weaving and glass-bangle areas) for the identification of minimum levels of learning (MLL), and the curriculum, study materials and textbooks, preparation of a teacher-training manual and the training to be imparted to identified master trainees and field officers. Experts from UNESCO (New Delhi), UNESCO:IBE (Geneva), UNICEF, ILO, NCERT, NIOS, SCERT, DIETs (Uttar Pradesh state), national universities, the Ministry of Labour, Child Labour Project Societies and NGOs that had carried out successful NFE programmes were involved. The objective was to review the existing curriculum and identify teaching/learning materials for the target groups. Participants at the workshops also prepared a training module for the instructors/teachers. An analysis of existing textbooks, study materials and lessons for the target groups were undertaken by the experts and master trainees to assess the usefulness and effectiveness of the lessons. Based on this process,

appropriate materials were identified for inclusion in the curriculum, which would cover the MLL identified by NCERT. The workshops were conducted separately for carpet-weaving and glass-bangle areas as per the following schedule.

- Carpet-weaving areas: UNICEF, Conference Hall, New Delhi, 10–12 October 2001.
- Glass-bangle area: UNESCO, Conference Hall, New Delhi, 23–24 December 2002.

**Phase II: Training.** Training was imparted to identified master trainees and teacher trainees of the NFE special schools. National Child Labour Societies in the two areas were requested to identify the master trainees and teacher trainees who would receive the training. The criterion adopted for selecting candidates were: (a) to have some teachers from the maximum number of NFE special schools in the two areas; and (b) to give priority to teachers who had not undergone training upgrades during the previous three to five years. The experts imparted the training module devised in the workshops to the trainees as per the following schedule.

- Carpet weaving areas: Mirzapur, 20–24 October 2001, and Varanasi, 31 October–7 November 2001, for the master trainees and teachers. Nine master trainers and fifty-eight teachers were trained in this programme.
- Glass-bangle area: Firozabad, 5–15 March 2003. Sixty-eight teachers were trained in this programme.

**Phase III: Monitoring of trainees.** Following the workshops, the trained teachers were observed in their classrooms by master trainers and experts with a view to improving their classroom practice. The experts reported their observations on a specially prepared form. Remedial and on-the-spot demonstrations or short-term training, if required, were provided by the master trainers and experts in these schools so that the teachers could improve their classroom interactions. A second round of monitoring was carried out for the trained teachers to ensure effective implementation of the training. The schedule of monitoring of trained teachers was as follows.

- Carpet-weaving areas: 14–20 January 2002 and 11–16 March 2002.
- Glass-bangle areas: 27–31 May 2003.

**Phase IV: Evaluation and testing of the achievements.** The outcome of the training imparted to master trainees and teacher trainees was measured by conducting examinations of selected enrolled children in the NFE schools taught by trained as well as untrained teachers. (Some of the teachers in the schools were still untrained since they had not been covered by the ISCA training programme.) This test was carried out some four to six months after the completion of the training. An appropriate sample of NFE special schools and students were carefully selected for the tests to cover the majority of schools in

both areas. The experts, keeping in view the lessons covered by the teachers in the classrooms after training, prepared common question papers. For comparison purposes, the children selected for the tests had been taught by both trained and untrained teachers. The tests were conducted for all three subjects (mathematics; language; social studies and environmental science). The purpose was to ascertain the contribution of training to the performance of the children in different subjects. A comparison with the earlier achievement level test, carried out at the time of the National Human Rights Commission report, was undertaken to measure the impact of the training. The examination schedule was the following:

- Carpet-weaving areas: 13–23 May 2002.
- Glass-bangle areas: 15–20 June 2003.



*Teacher training in progress.*



## IV. Minimum levels of learning

### Review of curriculum and teaching methods in NFE schools

When they were first set up, it had been anticipated that these non-formal education (NFE) special schools would have identified appropriate courses, books and study materials with suitable content so that the enrolled children were able to cover the five years of the primary education course in only three years. But a study carried out by the author in 2000 found that due to lack of training and guidance for the teachers, such materials had not been selected for use in the majority of schools.<sup>1</sup>

The curriculum adopted and the subjects taught in the NFE schools were found to be diverse, ranging from basic literacy skills (alphabets, reading and writing) to numeracy skills (counting, addition and subtraction) and general awareness about the surrounding environment. Most schools (more than 90%) were following a curriculum devised by the teacher concerned, who generally lacked the required training for developing such courses. Most of the teachers were using basic books that were not appropriate to the children's age or level of learning. No worksheets were prepared by the teachers to stimulate interest among the students. The curriculum adopted and the subjects taught in the majority of NFE schools lacked proper guidance from the concerned NGOs/District Child Labour Project Society supervisor. In short, everything was left to the teachers' initiative (see Table 9). In the absence of trained teachers and a lack of proper guidance, the NFE teaching programme appeared to be failing.

TABLE 9. Percentage of NFE schools adopting a particular curriculum

District	Basic state curriculum	Self-prepared by teacher/NGOs	Teachers use prescribed books	Language of instruction
Allahabad	38	62	22	Hindi
Bhadhoi	29	71	38	Hindi
Mirzapur	20	80	30	Hindi/English
Varanasi	—	100	38	Hindi
Firozabad	88	12	33	Hindi/English

Source: ISCA project on teacher training and curriculum development, 2002.

The textbooks supplied to the children were of an elementary level in the majority of the NFE schools, and had not been approved by any expert committee. Every NGO followed its own methodology when selecting textbooks for the courses. For instance, a basic textbook having alphabets both in Hindi and English, which would normally have taken two to three months to complete, was being taught for one full year. The course on environmental science, in other words, general knowledge about the local surroundings, was being provided in only a few schools.

Along with the basic content and skills referred to above, other required aspects of the curriculum, such as lessons on basic hygiene, children’s rights, crafts, socially useful and productive work and the practice of games, singing and story-telling were provided in an inadequate way to the children. The inclusion of these areas in the curriculum was found to be quite inadequate.

Only 56% of the teachers were found to be giving written exercises to the children. The majority of the NFE schools adopted traditional methods, based on rote learning (see Table 10). The use of teaching/learning materials such as charts, maps, flash cards and other demonstration materials, and of joyful learning approaches more generally, was observed in only a few schools. The majority of the teachers did not have a teaching kit or teaching manuals.

TABLE 10. Percentage of NFE schools using a particular teaching method

District	Written exercises	Reading from textbook	Rote learning	Reading aloud	Use teaching materials
Allahabad	44	88	100	100	28
Bhadhoi	100	100	100	65	39
Mirzapur	60	90	80	70	15
Varanasi	88	88	100	88	26
Ferozabad	33	100	100	100	28
Averag	56	92	96	82	21

*Source:* ISCA project on teacher training and curriculum development, 2002.

The lessons taught in these special schools were thus neither based on imparting the minimum levels of learning (MLL) identified by the NCERT, nor did they cover an appropriate curriculum or study materials/textbooks. In the majority of cases, the materials did not cover the MLL.

A study conducted by the V.V. Giri National Labour Institute (VVG NLI) on the functioning of the NCLP special NFE schools throughout the country further suggested that ‘the teachers should be given training in multi-grade teaching’.<sup>2</sup> Indeed, the two appointed teachers in the special schools generally had to teach different age groups and class levels of children. In the absence of appropriately trained teachers, a suitably identified curriculum and study materials/books based on the MLL, the NFE programme was ineffective in providing relevant teaching-learning opportunities for the students.

### Identified minimum levels of learning

The MLL evaluation system was created to ensure achievement of at least the prescribed levels of learning. Significant efforts towards specification of MLL had been made by the NCERT during 1978 when setting up the UNICEF-assisted projects on ‘Primary Education Curriculum Renewal’ and ‘Developmental Activities in Community

Education and Participation'. As part of these projects, a 'minimum learning continuum' was drawn up indicating the learning outcomes expected to be achieved by all children completing Classes II, III, IV and V. The Primary Education Curriculum Renewal Project was evaluated in 1984 using a set of achievement tests developed for all the primary classes based on the competencies specified in the minimum learning continuum. Utilizing the empirical evidence collected through this evaluation study and following the National Policy on Education 1986, NCERT prepared another document entitled 'Minimum Levels of Learning at the Primary Stage'.

Minimum levels of learning competencies (identified by NCERT for Classes II to V in formal schools) in language, arithmetic and environmental science were examined to analyse their relevance for the target groups in the special NCLP NFE school. At the two workshops held in New Delhi, the participants discussed the MLL prepared by NCERT and subsequently modified them to suit the identified target groups. The participants in the two workshops felt that:

The focus of basic education must be on actual learning-acquisition and outcome, rather than exclusively upon enrolment, continued participation in organized programmes and completion of certification requirements. Active and participatory approaches are particularly valuable in assuring learning acquisition and allowing learners to reach their fullest potential. It is therefore necessary to define acceptable levels of learning acquisition for educational programmes and to improve and apply systems of assessing learning achievements.<sup>3</sup>

A fundamental requirement of any NFE course is to provide appropriate teaching/learning packages to achieve this basic goal of education. While framing a curriculum for street and working children, it is important to keep the background of the children in mind. The curriculum proposed through the project for the NFE schools has three main stages:

- The preparatory stage: equivalent to lower and higher kindergarten in formal schools.
- The elementary stage: equivalent to Classes I and II in formal schools.
- The advanced stage: equivalent to Classes III, IV and V in formal schools.
- The contents of the teaching/learning materials should cover the following minimum levels of learning for various subjects:

#### *Language development*

- Oral communication: teaching the skills of speaking and reading, including spelling;
- Developing the skill of handwriting;
- Factual writing; creative writing;
- Comprehension of textual/printed information.

#### *Mathematics*

- Numeracy: reading of numerals, understanding the values of numbers in terms of greater or lesser;

- Major operations like addition, subtraction, multiplication, fractions, introduction of decimals and use of a calculator.

#### *Basic geometry*

- Identification of two/three-dimensional shapes, measurement of lines, angles.

#### *Science*

- Health and hygiene, basic biology, basic botany, basic physics and chemistry.

#### *Social science*

- Information specific to the geographic-area, introduction of maps, countries and their location;
- History: awareness of important cultural/historical events;
- Community living.

#### *Arts, craft, music and movement*

- All learning activities fostering the development of these skills will revolve around the learning themes used for language development, mathematics, social studies and science.

The level and method of teaching the above content will vary according to the age and learning capacity of the child.

### **Identification of textbooks/study materials**

The two workshops held in New Delhi modified the MLL prepared by the NCERT to suit the requirements of the identified trainees (see Annex III). These MLL were specified after examining and reviewing the textbooks/study material already used by the Uttar Pradesh Primary Education Board for formal schools up to Class V level. The study materials/textbooks considered for this purpose were:

- Books of the Uttar Pradesh Basic Primary for formal schools—Classes I to V;
- Books of the Bal Adhikar Pariyojana for special NFE schools (a UNICEF-supported project);
- Other books prepared by district education departments and educationists.

The experts undertook a detailed analysis of each lesson in these books covering the following aspects:

1. Title of the book;
2. Subject;
3. Source;
4. Content of the lesson;
5. Competencies contained in the lesson;
6. Teaching/learning processes adopted in the lesson;
7. The nature of exercise assignments provided in the lesson;

8. Language vocabulary and level of difficulty;
9. Remarks.

The aim of this analysis was to establish a thorough understanding of the content and competencies of the lesson. Following the exercise, the participants decided that the books from Classes I to V (language, arithmetic and environmental science) prepared by the Uttar Pradesh Basic Primary Education Board should be taught to the children in NFE schools under NCLP in Uttar Pradesh, since they covered in an adequate manner the MLL competencies for the children enrolled. It was recommended to make a selection of the lessons from these five sets of books, since the five-year course was to be completed in only three years. A detailed exercise of selecting the lessons was undertaken in the workshops (see Annex IV).

Teachers would be expected to be capable of the following in preparing for and conducting their classes:

- Understanding the context of the lesson;
- Understanding the objectives of the lesson;
- Developing the expected competencies through the medium of the lesson so as to extend the subject matter;
- Taking the given exercises as mere examples, leading to the creation of new exercises as required.



*Learning in NFE schools after training programme*

## Notes

1. Bupinder Zutshi, *Impact, community response and acceptance of non-formal education under the National Child Labour Project: a case study of carpet-weaving belt of Mirzapur-Bhadhoi and glass-bangle region of Ferozabad*, New Delhi, National Human Rights Commission of India, 2000.
2. V.V. Giri National Labour Institute, *National Child Labour Projects: an evaluation*, p. 8, Noida, India, 2001.
3. Initiative for Social Change and Action, *Seminar report on Non-formal Education Teachers Training in India, 23–24 December 2002*, New Delhi, ISCA, 2003.

## V. The training process

### **The teacher-training process**

As a part of the capacity-building measures, teacher training was provided in order:

1. To inculcate in teachers the non-formal education (NFE) approach and the need to integrate it within the formal education system.
2. To impart skills to the master trainees/teachers enabling them to analyse the content of the lessons contained in the textbooks in terms of content, competencies, teaching/learning processes, presentation format, the nature of exercise assignments, language and vocabulary, and to prepare lesson plans for the provision of quality teaching.

In order to achieve these aims, two preliminary workshops were held to review the training module for NFE teachers prepared by NCERT. The workshops were attended by the representatives of UNESCO (New Delhi), UNESCO:IBE (Geneva), the Government of Uttar Pradesh, the Labour Department of the Indian Government, ILO (New Delhi), NCERT, Jawaharlal Nehru University, NGOs (including representatives from Project Mala, Don-Bosco Ashalayam, Tomorrow's Foundation, Prayas, Bachpan Bachao Aandolan, CREDA), various educational experts and journalists, as well as some teachers from the NFE schools

### **Rationale for the NFE training module**

The teachers selected for the training were mostly untrained, but had already devoted two-to-five years to teaching in the special schools. They had gained all their educational experience in formal schools, and most of them had no idea of the methodology of non-formal education.

The socio-cultural level and educational background of the trainees were discussed at the two workshops. Demonstrations of their present methodology of teaching, curriculum content and the teaching/learning materials used were analysed to prepare appropriate training modules and to identify suitable materials and textbooks. An in-depth analysis of the textbooks adopted by the Uttar Pradesh Primary Education Board was undertaken.

A detailed discussion of existing teaching methods indicated that most of the trainees were unable to differentiate formal from non-formal schooling, and hence were teaching as if in a formal setting. As revealed in Chapter IV, the majority of them were using rote methods of teaching. Teaching/learning materials other than textbooks were hardly ever used in the classrooms. Teachers lacked skills to cope with multi-grade classes, even though different levels of pupils were being taught in the same classroom. Joyful methods of teaching were unheard of and children were not encouraged to participate actively at any stage of the learning process. Preparation

of lesson plans for teaching was uncommon. Gender-sensitivity in teaching was lacking and assessment was carried out in an unprofessional manner.

### **Contents of the training module**

In view of the above observations, the training modules prepared by NCERT for NFE schools were modified to introduce several sections relating specifically to non-formal education approaches, background information about the enrolled children and other components. The following sections were proposed for the training module:

#### *Background information provided to the trainee*

- The significance of education as empowerment of society;
- The role and responsibility of community volunteers in special NFE schools;
- The significance of proper and suitable management for conducting activities in the NFE schools;
- The contribution required from the community, local people, other local teachers, the local environment, etc., in developing the NFE schools.

#### *Understanding non-formal education*

- Teaching methodologies employed in non-formal education compared to formal education in terms of the variations in demographic, cultural and social factors affecting the enrolled children;
- Knowledge about the children at the school: their developmental levels, personalities, interests, behavioural problems and learning difficulties.

#### *Methods of learning and teaching*

- Participatory learning;
- Relating learning to the local environment, culture and lifestyles;
- Using diverse learning aids and methods: charts, poems, jokes, role play, learning by doing, field trips;
- Experiential learning, inquiry and group work.

#### *Knowledge about teaching/learning materials*

- Types of teaching/learning materials: textbooks, charts, workbooks and audio-visual materials;
- Preparation of teaching/learning materials from locally available and inexpensive raw materials;
- Preparation of lesson plans;
- Objectives and requirements of a lesson-plan analysis of school primers, worksheets and books;
- Methods of teaching to be utilized based on lesson analysis.

### *Gender issues*

- Emphasizing equality by highlighting the significance of both genders;
- Describing the roles of men and women in the social, cultural and economic environment.

### *Teaching language*

- Familiarising children with known alphabets from words used in the family and locality for general conversation;
- Dictation of alphabets, word formation, spelling of names;
- Teaching of vowels and consonants;
- Writing of words;
- Employing joyful methods in teaching reading and writing.

### *Teaching mathematics*

- Employing joyful methods in teaching mathematics, especially with the help of locally prepared teaching/learning materials, like charts, the abacus, number games, flash cards, etc.;
- Explaining the teaching of mathematics by integrating it with domestic and community surroundings;
- Evaluation of lessons imparted through learning-by-doing techniques.

### *Teaching environmental science*

- Employing joyful methods in teaching environmental and social studies, especially with the help of stories from the local surroundings and with the help of charts, diagrams, experiments, flash cards, etc.;
- Relating environmental studies to domestic and community life;
- Evaluation of lessons imparted through learning-by-doing techniques.

### *Evaluation of lessons taught*

## **The training schedule**

A series of ten-day intensive residential training courses, taking place at Mirzapur, Varanasi and Firozabad, was conducted to impart NFE training to the selected master trainees and teacher trainees. Experts from NCERT and various universities imparted the training as foreseen in the training module already discussed and developed at the workshops held at New Delhi. The training covered:

- Use of the NFE teacher-training manual prepared by NCERT and modified at the two workshops held in New Delhi;
- Detailed lesson analysis of the Uttar Pradesh Primary Board basic education books, Classes I to V;



- Demonstration in nearby primary schools of the teaching methods learnt during the training;
- Evaluation of the demonstration lessons.

Following is a detailed outline of the training, which closely followed the teaching module described earlier:

#### *Introductory session*

- Prayers—their significance and practice in the classroom;
- Introduction of all participants and listening to their expectations from the training programmes;
- Discussion on current textbooks and teaching/learning methods used in the classroom and their content in terms of covering the MLL;
- Live demonstrations of classroom interactions for any selected lesson by group leaders;
- Understanding methods adopted for the assessment and evaluation of lessons taught in the classes.

#### *Background information*

- The significance of education as empowerment of society;
- School management;
- Creating a conducive educational environment in the school;
- The role and responsibility of community volunteers in NFE schools;
- School/community associations;
- Demonstrations of how to create community awareness, community rapport and seeking the support of the local community in the enrolment of children, especially girls, in the NFE schools. This was demonstrated by drama, songs, poster-making, etc.

#### *Understanding non-formal education*

- Understanding NFE and the need to enrol children in formal schools after completion of NFE;
- The requirements of NFE in view of the presence of children from different age groups, underprivileged backgrounds, and with different developmental levels and learning abilities;
- A methodology for understanding, evaluating and reporting on the students, their developmental levels, interests, behaviour and learning difficulties;
- Analysis and presentation of report prepared by each group on identifying children with different learning difficulties.

### *Knowledge about teaching/learning materials*

- Different types of teaching/learning materials, lesson analysis of textbooks, appropriate teaching methods, preparation of supplementary materials.

### *Gender sensitivity in teaching and learning*

- The significance of educating girls;
- Girl-friendly teaching/learning methods;
- Adoption of examples in classroom teaching which valorize women's work and promote gender equality in the home and workplace.

### *Teaching arithmetic/science/environmental studies/language*

- Details about teaching these subjects in primary classes;
- Use of play and joyful methods in teaching these subjects with the help of locally available materials, songs, music, charts, etc.;
- Lesson analysis of these subjects for classes I-IV;
- Preparation of teaching-learning materials using locally available resources;
- Visit to a nearby primary school in order to demonstrate the skills learnt for teaching these subjects. Preparation of a written report in which shortcomings of the teaching practice were identified and addressed, followed by discussion.

### *Classroom transactions*

- Imparting skilful techniques for lively and participatory classroom teaching strategies especially related to:
  - The recall of previous lessons;
  - Presentation of an interesting summary of the lesson;
  - Introducing the main concepts of the lesson through familiar situations from the known environment;
  - Use of appropriate language, including examples from the local language;
  - Introducing reading and writing exercises for children based on textbook lesson;
  - Use of child-centred activities and of joyful methods of learning and teaching;
  - Promotion of thinking skills;
  - Identification of appropriate teaching aids;
  - Evaluation;
- Visit to a nearby primary school to observe classroom interaction and preparation of a written report.

### *Evaluation and examination*

- Methodology for evaluating the testing of achievement levels;
- Demonstration of how to conduct oral evaluation, as well as written examinations;
- Methodology of preparing a question paper to cover memory, understanding, general knowledge and analysis aspects of the lessons taught to the students.

Each section or unit of the training schedule included preparation and presentation by trainees of reports on the specific area covered, followed by group discussions.

### **Teachers' viewpoints and observations**

Following the training, teachers were asked to complete the specially prepared form requesting their views and observations on the programme conducted by the Initiative for Social Change and Action (ISCA). The components covered in this form included:

1. The trainee's views and observations on:
  - The time scheduling of the training components;
  - The methodology and training provided;
  - The benefits of the training;
  - Other facilities provided during training;
  - Comparison of this training with any previous training experience.
2. Utilization of the skills learned in the training:
  - Lesson plan analysis;
  - Adopting play and demonstrative methods;
  - Difficulties in adopting the training skills learned.
3. Suggestions for improvement of training.

The majority of the trainees rated the training as very useful and important in helping them to improve their classroom interaction skills. They felt that it helped them to prepare classroom lessons effectively so as to face the students with confidence. They gained valuable experience in preparing appropriate teaching/learning materials to help students understand the lessons better. The majority of teachers expressed the opinion that the training was extremely useful in helping them to understand the difference between teaching NFE courses, which required specific understanding and knowledge, compared to formal courses. The observations of a sample of teachers who had completed the training evaluation form are summarized in Table 11.

TABLE 11. A sample of views and observations by trained teachers on the ISCA training programme

School location	Presentation of training	Content of training	Comparison of ISCA training to other training	Whether skills learned were implemented in classroom interaction	Suggestions for improvement
Nehru Nagar	Good, highly talented human resource	Very good	Interesting and enjoyable	No, due to lack of books to children	More training required from time to time
Afsabad	Very good/trainers talented	Covered all components	Beneficial for NFE course	No, due to lack books to children	This training was beneficial and should be given to all teachers
Nehru Nagar	Good/trainers highly efficient	Good, covered all important aspects of NFE	Very good and highly beneficial for NFE	Yes, benefited by monitoring and support from experts	Books should be given to all children Training should be regular
Tapa Kalan	Good/trainers were efficient and helpful	Good, Covered all important aspects	Very good, emphasised joyful methods	Both Yes and No No, because books are not available to all children. Classroom transaction has improved	Books should be given to all children More training required in between sessions
Satya Nagar	Good/trainers experienced and talented	Very good, learnt new methods for joyful teaching	Beneficial and more comprehensive	Yes and no. Needs more orientation	Training should be syllabus oriented Books should be available to children
Tapa Kalan	Excellent/trainers were experienced	Very good, covered all important components	Beneficial and comprehensive covering joyful methods	Yes and no. Classroom transaction improved, but requires more orientation	Training should be syllabus oriented Books should be available to Children Needs more training
Kabir Nagar	Very good. Trainers were experienced and efficient	Good, covered majority of NFE concepts	Learned new methods of teaching which are joyful	Yes, especially classroom transaction Children are now more attentive	Need more training Training time must be increased Children must be given books

# VI. Monitoring

## **Monitoring of training**

An integral part of the project evaluation consisted of monitoring the teachers and providing support to those who had been trained. The experts visited twenty-seven special NFE schools located in the carpet-weaving area and twenty-nine schools in the glass-bangle making area. Monitoring of the training was conducted over fifteen days in the carpet-weaving area and for seven days in the glass-bangle area. The objective of the visits was to evaluate, monitor and provide appropriate support to the NFE teachers trained through the project. On-the-spot support was provided to teachers so as to improve their teaching methodology. Experts were requested to complete a specially prepared form after observing the trained teachers in the classroom. The form covered the following areas:

1. Recall of previous lessons;
2. Presentation of a summary of the lesson;
3. Introduction of lesson concepts;
4. Teaching aids used;
5. Interaction with the children;
6. Student participation;
7. Activity-based methods used in the classroom;
8. Language used in class;
9. Evaluation method adopted;
10. Overall observations.

The analysis report prepared by the experts was discussed with the evaluated teachers. They were then requested to incorporate any appropriate teaching methods in order to further improve the quality of their teaching. The results of the analyses indicated that the teachers incorporated significant quality changes in the classroom interactions after the training.

On the basis of the experts' reports, a second round of on-the-spot monitoring in the schools by the master trainers and experts was conducted. The master trainers were encouraged to conduct the monitoring and provide on-the-spot support to the trained teachers. This was successfully carried out and the teachers were provided with the necessary support.

Three experts conducted the final round of monitoring and visited all fifty-six selected special NFE schools. Eighty teachers were evaluated and provided with appropriate support during the monitoring sessions. The evaluation reports submitted by the experts indicate that significant changes had taken place in classroom practice. In the majority of cases, a noticeable improvement was observed compared to the previous monitoring and evaluation exercise. Teachers had developed better communication skills, reflected in effective transactions between teachers and students. Most teach-

ers had improved their classroom practice through the use of prescribed texts, self-prepared TLMs and interactive methods with the children. Students were more responsive and were interacting more freely with the teachers. Teachers had significantly improved their evaluations skills and they appreciated the impact of the training.

An example of an analysis of the monitoring form prepared by the experts is given in Table 12.

However, in some cases the skills acquired during the training had not been translated satisfactorily into classroom practice due to various operational problems, including lack of adequate classroom space and teaching-learning materials. Some teachers had not been able to prepare lesson-plan analyses due to the lack of textbooks. The experts provided on-the-spot support to these teachers in order to increase a sense of responsibility and enthusiasm. The project directors and field officers of the district NCLP committees also undertook to provide future monitoring and support to teachers. The NCLP committees were asked to tackle various operational problems including:

- Lack of textbooks among some children;
- Lack of demonstrational teaching/learning materials;
- Inappropriate location and environment for the schools;
- Inappropriate grouping of children in the classes.<sup>1</sup>.

TABLE 12. A typical monitoring and evaluation report of a trained non-formal education teacher

Assessment indicators	Monitoring assessment	
	Support provided	Responses
Lesson plan prepared	No	Preparation of lesson plan and demonstration of play methods
Recall of previous lesson	Yes	
Presentation of summary	Yes	
Concepts	Explained clearly	
Teaching aids used	Blackboard and self-prepared	
Interaction with children	Very good	
Students participation	Good	
Methods used	Play methods and book reading	
Language used	Standard for their understanding	
Evaluation	Oral question	
Overall report	Good, improved after training	

*Note:* Reports of all teachers have been submitted to the funding agency.

## Notes

Several instances were found where children of different competency levels were located in the same classroom. Conduct of the lessons becomes difficult for the teacher in such cases.

## VII. Project evaluation

### Rationale

One of the recommendations of the workshop conducted in October 2001 was to assess the success of the teacher-training programme by comparing the achievement levels of the children taught by trained teachers and those taught by untrained teachers. The purpose was to examine the outcomes of the training so that this model, if proved successful, could be replicated in other National Child Labour Project (NCLP) societies with the support of the Ministry of Labour.

In order to measure the level of success from the teacher-training programme, UNESCO (New Delhi) and UNESCO:IBE (Geneva) supported achievement-level studies to examine the impact of the teacher training in the NFE schools under the NCLP in Uttar Pradesh. Experts conducted an achievement-level examination of the enrolled children whose teachers had been trained earlier by the Initiative for Social Change and Action (ISCA). The major objective of this study was to conduct evaluation studies/achievement-level tests to measure the impact of the training after an interval of four to six months. For comparison purposes, the sample included children taught by both trained and untrained teachers. The training provided by ISCA had covered only one or two teachers from each school. Thus, the trained teacher would have been teaching one subject while an untrained teacher taught another subject to the same children. The children were examined in all the three subjects, whether taught by trained or untrained teachers.

### Methodology

In order to guarantee proper representation, a sample of twenty-nine special NFE schools from the carpet-weaving area and twenty-seven in the glass-bangle making area were selected. Care was taken to ensure adequate representation of boys and girls in Classes III/IV and Class V in each of the selected schools (see Table 13).

The tests were conducted separately for Classes III/IV and Class V over two days in each selected school. Thus, two sets of question papers were prepared. Tests were conducted for mathematics, language and environmental science and social studies (EVS). The question papers included the curriculum covered during the previous six months. Experts framed both descriptive and short-answer questions to measure the achievement levels of the children. The presence of appropriate supervisors was sought to ensure the smooth conduct of the tests. Subject experts in mathematics, language and environmental science (EVS) evaluated all the answer sheets to ensure uniformity in the marks allocated to the examined children.

TABLE 13. Numbers of sample schools and children selected for achievement tests

(May 2002–May 2003)

Class	Subject	Taught by	Carpet-weaving area			Glass-bangle area		
			NFE schools	Boys	Girls	NFE schools	Boys	Girls
III and IV	Maths	Trained teacher	29	313	287	27	289	254
		Untrained teacher	29	43	46	27	65	52
III and IV	Language	Trained teacher	29	293	278	27	256	254
		Untrained teacher	29	75	85	27	65	52
III and IV	EVS*	Trained teacher	29	308	278	27	245	250
		Untrained teacher	29	52	82	27	62	50
V	Maths	Trained teacher	29	229	216	27	184	132
		Untrained teacher	29	99	91	27	42	34
V	Language	Trained teacher	29	287	268	27	168	122
		Untrained teacher	29	41	39	27	40	36
V	EVS	Trained teacher	29	266	254	27	178	122
		Untrained teacher	29	62	52	27	40	34

\* = EVS: environmental science and social studies.

### Achievement test analysis

The results of the examination are encouraging as significant variations in achievement levels were observed between the children taught by the trained teachers as compared to those taught by the untrained teachers. Children taught by the trained teachers achieved significantly higher marks overall than those taught by the untrained teachers in all the subjects for Classes III/IV and Class V (see Tables 14 and 15). Significantly, the same children performed better when taught by a trained teacher than when taught by an untrained teacher. Thus, the training provided was considered significant in improving achievement levels. However, variations in the performance levels among the trained teachers were also observed between different schools in these three subjects.

The outcomes of the examination clearly illustrate the need for imparting appropriate training skills to the teachers if an effective NFE programme of quality is to be achieved. The identification and availability of suitable teaching/learning materials and design of an appropriate curriculum helped in improving educational provision. All of the evaluated schools employed the curriculum devised by ISCA.

There is also a need to conduct continuous monitoring of the trained teachers so as to improve their skills and efficiency. Experts must provide these teachers with on-going support and guidance.



TABLE 14. Achievement levels of children attending NFE schools in the carpet-weaving area, May 2002

Class and subject	Teachers status	% Boys % Marks attained					% Girls % Marks attained				
		< 40	40-50	50-60	60-70	Above 70	< 40	40-50	50-60	60-70	Above 70
		Class III/IV Maths	T	6	7	19	23	45	13	8	22
	UT	32	26	12	19	11	43	22	10	12	13
Class III/IV Language	T	15	17	31	19	18	24	18	27	18	13
	UT	32	31	24	13	0	39	33	19	9	0
Class III/IV EVS	T	7	11	22	29	31	13	14	19	24	30
	UT	31	24	26	15	4	39	29	26	7	0
Class V Maths	T	3	7	21	28	41	4	3	24	27	42
	UT	25	26	18	18	13	26	29	18	15	12
Class V Language	T	8	12	29	29	22	4	16	29	35	16
	UT	29	36	31	14	0	19	35	27	19	0
Class V EVS	T	6	8	31	39	16	6	10	32	8	14
	UT	28	26	23	23	0	26	27	21	26	0

T = trained teachers, UT = untrained teachers.

TABLE 15. Achievement levels of children attending NFE schools in the glass-bangle area, May 2002

Class and subject	Teachers status	% Marks attained				
		< 40	40-50	50-60	60-70	Above 70
Class III Maths	T	6.50	6.50	15.00	22.50	49.50
	UT	42.16	18.63	21.57	13.73	3.92
Class III Language	T	15.50	19.50	15.50	21.50	25.00
	UT	54.17	25.00	14.58	5.21	1.04
Class III EVS	T	3.00	14.00	18.00	28.00	37.00
	UT	15.69	23.53	16.67	25.49	18.63
Class IV Maths	T	12.31	10.77	29.92	23.08	26.92
	UT	41.10	26.03	15.07	13.70	4.11
Class IV Language	T	24.07	22.22	17.59	14.81	21.30
	UT	48.33	18.33	21.67	11.67	0.00
Class IV EVS	T	2.31	8.46	16.92	23.85	48.46
	UT	35.62	21.92	24.66	82.22	9.59

T = trained teachers, UT = untrained teachers.

## VIII. Difficulties

The project encountered several difficulties during the operational stages. These are described below.

The project required multi-level management and co-ordination of different stakeholders spread over a large area. This was difficult and time consuming and ensuring the attendance of all stakeholders at workshops and training programmes was not easy. Bureaucratic procedures seeking permission for teachers and other staff member to be available to attend consumed a great deal of time.

Due to the fact that financial resources and time were limited, only a small number of master trainers and teacher trainees had been selected for training. Identification of these master trainers and teacher trainees was complicated in view of the presence of a large number of untrained teachers in the special schools. Responsibility for selecting master trainers and teachers was passed to the respective District Child Labour Project societies. Their selection, however, was found to be unbalanced, as several special schools were not covered by the training, while several young teachers who should have been given priority, were left out.

Organizing ten-day residential training for sixty teachers each at Varanasi, Allahabad and Firozabad was a complex task in terms of the provision of accommodation, food, transport, etc. Furthermore, due to existing cultural perceptions, there was an initial reluctance in sending female teachers. However, after a great deal of persuasion and the involvement of community members, female teachers were allowed to attend the residential training sessions.

The expected outcomes from the training were difficult to achieve for the following reasons:

- Inappropriate grouping of the children in the classroom. Several instances were found where different competency levels of children existed in the same class. This complicated the teacher's task in carrying out the lessons.
- A lack of appropriate multi-grade teacher training was found to be a major drawback in the initial phase of training. However, this was rectified in subsequent training programmes.
- The absence in the schools of the stipulated books.
- The non-availability of teaching/learning materials in the schools.
- Inappropriate school location and infrastructure.

The monitoring of trainees was made more difficult by the fact that some schools were inaccessible by vehicles. Sometimes, monitoring experts had to travel on foot for several hours to reach the schools. For this reason, not all of the schools whose teachers had been trained could be monitored due to time constraints.

Furthermore, conducting examinations to measure the achievement levels was made more cumbersome and difficult due to the wide dispersal of the schools. A large number of supervisors had to be employed so that the examination papers reached the selected schools on time. The managing of examinations on such a large scale had not been envisaged when requesting financial support and, therefore, approved finance for the project was inadequate to cover these expenses while implementing the project in the field.

Finally, the community and parents were initially reluctant to support the project due to a lack of awareness about its usefulness.



*Pupils in NFE school after training programme.*

# IX. Conclusions and recommendations

## Conclusions

The global vision of the 'Education For All (EFA) Plan of Action' is to ensure that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to free and compulsory primary education of good quality. Achieving this objective is a huge challenge for countries like India in view of the large number of out-of-school children, especially in rural areas where educational infrastructures and the availability of quality human resources for teaching are inadequate. The presence of a vast number of out-of-school children in the 9–12 age-group demands alternative educational strategies in order to prepare them for entry into the formal system at a later stage. This can be achieved by providing quality catch-up programmes, especially through non-formal education (NFE) and in other ways. Improving the quality of NFE is one of the major requirements in order to achieve the EFA objectives.

The present project was conceived to improve the quality of the non-formal education strategy for the National Child Labour Project (NCLP) special schools in Uttar Pradesh, India. The project set out to develop an appropriate curriculum based on minimum levels of learning (MLL) identified for the target groups. The outcome of the project provided significant inputs for policy-makers to address the issues of providing quality non-formal education in India. It identified a curriculum based on MLL, textbooks and other teaching/learning materials for the NFE course, so that the children could be smoothly mainstreamed into the formal education system after completing NFE in special schools.

An NFE teacher-training module was developed keeping in view the difficulties, experiences and requirements of the target teachers. The training module has helped to strengthen capacity-building processes for teachers through the provision of appropriate training modules and by imparting needs-based classroom teaching interaction methodologies.

Two workshops provided direct interface and experience-sharing opportunities to the selected master trainees, teacher trainees, field officers of NCLP societies, NGOs and academic experts, where they were able to discuss the issues of non-formal education so as to benefit from the experience gained and the difficulties encountered by all of the stakeholders. MLL prepared by the National Council of Educational Research and Training (NCERT) were modified to suit the specific requirements of the children in the carpet-weaving and glass-bangle-making areas. The lessons of the stipulated textbooks for Classes I to V were analysed keeping in mind that the course would provide five years of primary education in a three-year period through accelerated teaching/learning methods.

On the recommendation of the project team, the suggestion of incorporating the Uttar Pradesh Primary Board textbooks as appropriate study materials in these special NFE schools was agreed upon by the authorities of the local NCLP societies. Thus, the Uttar Pradesh primary education books for Classes I to V (for the subjects of language, arithmetic and environmental science) were introduced in the NFE special schools to ensure the smooth mainstreaming of the children into formal schooling at a later date.

The exercise of concentrating the five-year course of lessons (contained in the Uttar Pradesh Primary Board books) into a three-year course had been accepted by majority of the NFE schools managed by the NCLP in Uttar Pradesh. This approach could be disseminated advantageously in other areas where NCLP special schools are in operation.

The district administration has understood the importance of providing adequate quantities of books and other teaching/learning materials to the children and teachers. In the majority of cases the stipulated books have been provided to the children as recommended by the project.

The modified training modules for teachers have been effective in creating a positive response from the trainees. Teachers have appreciated the training methodology, especially the necessity of understanding the premises of non-formal education compared to the formal system. The training methodology has improved their skills in understanding the intellectual, cultural and social situation of the children, so as to introduce a child-centred approach in education. It has also helped the trainees to learn the skills necessary for developing an effective community rapport.

The monitoring of teachers and the provision of the necessary support, guidance and academic input in the schools have improved classroom practice. The trainees have appreciated the on-the-spot support provided by experts in their respective schools. This has highlighted the on-going need to monitor the trained teachers so as to improve their skills and efficiency continuously.

The trainees have developed skills in preparing lesson plans for quality classroom teaching transactions. They have been able to introduce joyful learning methods and interactive sessions with the enrolled children. The observations of experts have indicated that the training has helped teachers to prepare classroom lessons effectively enabling them to face the pupils with confidence. The involvement of children in classroom teaching/learning processes has increased, with the result that students are more responsive and active. Teachers have gained valuable experience in preparing and using appropriate teaching/learning methods that help students understand lessons better through learning-by-doing activities.

Achievement-level tests indicated that children performed better after teachers had received training. Significant variations in achievement levels were observed between children taught by trained teachers and those taught by untrained teachers. A significant sample of children performed better in the subjects taught by trained teachers compared to those taught by untrained teachers.

The outcomes of the training module provided to the teachers demonstrate the need for imparting such training skills to teachers for effective and quality NFE programmes throughout India.

The challenge is to continue the momentum generated through the project which is faced with several operational problems, including lack of suitable school infrastructure, and limited availability of appropriate teaching-learning materials. However, the biggest challenge of all for the programme is to achieve success in introducing these children into the formal education system after the completion of NFE schooling. Support from the local authorities, NGOs, teachers, parents and society is required to ensure that the majority of children go on to join the formal education system. The success of this programme will depend on the number of these children who enter and remain in formal schooling.

## **Recommendations**

Based on the outcomes of the project, NCLP projects in other parts of the country should consider developing area-specific MLL, as well as identifying textbooks and study materials for special NFE schools. This approach will help children to enter formal education without problems, which is one of the basic objectives of Sarva Shiksha Abhiyan—an Education for All Plan of Action in India. The identified textbooks and study materials should be made available to all enrolled children.

In-service training at the time of appointment should be provided to all teachers in special schools and such training should continue on a regular annual basis. NCLP should make the provision of teacher training a top priority and it should form an integral part of the project programme. Experts should undertake monitoring of teachers in schools and provide academic support for effective classroom practice, on a regular basis. Any untrained teachers in these schools should be provided with similar training opportunities so as to create an overall conducive educational environment.

A study needs to be conducted to examine the process of mainstreaming these children into the formal education system and to evaluate their academic progress in formal schools. The study should highlight the difficulties they may face in terms of academic performance, integration in the school community and post-school opportunities.

## **ANNEX I: ABBREVIATIONS**

EFA	Education for All
IBE	International Bureau of Education
ILO	International Labour Organisation
ISCA	Initiative for Social Change and Action
MLL	Minimum levels of learning
NCERT	National Council of Educational Research and Training
NCLP	National Child Labour Project
NFE	Non-formal education
NGO	Non-governmental organization
NIOS	National Institute of Open Schooling
NSS	National Sample Survey
PHC	Primary Health Centre
PRI	Panchayati Raj Institutions
SCERT	State Centres for Education Research and Training
TLM	Teaching/learning materials
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UP	Uttar Pradesh

## ANNEX II: IDENTIFIED MINIMUM LEVELS OF LEARNING

(Random samples from Classes I, II, III, IV and V.)

### LANGUAGE

#### *Class I*

1. Listen with understanding to simple, familiar and popular rhymes, poems and tales.
2. Listen with understanding to conversations and dialogues in familiar situations.
3. Listen with understanding to oral requests and simple instructions (in familiar situations);
4. Repeat simple sentences correctly.
5. Recite simple rhymes, poems and songs with action.
6. Answer simple questions requiring Yes/No answers.
7. Ask simple questions.
8. Recognize common letters of the alphabet in combination or singly.
9. Read crude handwritten letters.
10. Read simple known words aloud.
11. Copy vowels, consonants, *Matras* (accents) and compound words.
12. Write (taking dictation) vowels, consonants, *Matras*, and compound words.
13. Write simple and familiar words and simple sentences.
14. Recall simple information given in a short, spoken text.
15. After listening, be able to answer short questions of the ‘when?’, ‘who?’ and ‘where?’ type.
16. Become aware of similarities between words on the basis of word endings.
17. Be able to use a simple picture glossary where available.
18. Understand and use simple information and practical phrases.
19. Acquire a reading/comprehension vocabulary of approximately 1,500 words.

#### *Class IV*

1. Listen with understanding to simple speeches in familiar situations.
2. Understand conversations and dialogues in unfamiliar situations.
3. Understand a series of oral instructions.
4. Speak without stopping unnaturally.
5. Recite a poem with proper delivery.
6. Describe unfamiliar things.
7. Take part in a simple classroom discussions.
8. Read comics, cartoons and posters.
9. Read handwritten letters.
10. Read children’s magazines.
11. Write neatly and legibly.
12. Take dictation with punctuation marks.



13. Write guided composition with punctuation marks.
14. Recognize simple cause-and-effect relationships between events or ideas in oral or written material.
15. After listening to or reading a text, be able to answer questions using 'because' and 'since'.
16. Understand simple functional or general rules of sentence construction.
17. Be able to use a dictionary.
18. Learn the difference between formal and informal language.
19. Acquire a vocabulary of 4,000 words.

## ARITHMETIC

### *Class III*

1. Recognize and write numerals from 100 to 1,000.
2. Write number names from 1 to 100.
3. Demonstrate understanding of place value of 3-digit numbers by expanding numbers between 100–999 into hundreds, tens and ones, and by expressing the expanded form as a 3-digit number.
4. State the place value of the digits within a 3-digit numeral.
5. Arrange numbers from 100 to 1,000 in ascending and descending order.
6. Compare numbers from 100 to 1,000 using signs  $<$ ,  $>$  and  $=$ .
7. Demonstrate understanding of ordinal numbers.
8. Demonstrate understanding of even and odd numbers.
9. Add two or three digit numbers with carrying and sum not exceeding 999.
10. Subtract 3-digit numbers with borrowing.
11. Add and subtract mentally two numbers that are whole hundreds, where no number in the operation exceeds 1,000.
12. Understand different terms of operation of multiplication.
13. Add and subtract mentally two numbers that are multiples of 10 or 100, between 10 and 100, where one of the numbers is a two-digit number and where no carrying or borrowing is involved.
14. Know tables from 2 to 10 (orally or written).
15. Multiply 2- and 3-digit numbers by single digit numbers with carrying and product not exceeding 999.
16. Demonstrate understanding of the concept of division as repeated subtraction.
17. Divide 3-digit numbers by 1-digit numbers without carrying or remainders.
18. Solve daily life problems based on the operations of multiplication and division.
19. Understand use of coins and currency rates up to Rs.10.
20. Keep account of ordinary purchases.
21. Demonstrate understanding of mutual relationship of meters and centimetres.
22. Add two lengths of metres and centimetres and find out their difference.
23. Understand the relationship of standard units of weight.
24. Recognize different block measures of mass.

25. Add the mass (weight) of two or three objects when the mass of each object is expressed in kilograms and grams without conversion.
26. Find the difference in the mass (weight) of two objects.
27. Understand the relationship between standard units of capacity (litres).
28. Add and subtract two or three quantities of liquid.
29. Make inferences on the basis of non-standard units of measuring weight.
30. Understand intervals of hours, minutes, and seconds on a clock.
31. Interpret a calendar.
32. Draw plain shapes of squares, rectangles, circles and triangles and state their properties.

### *Class V*

1. Recognize and write numerals from 10,000 to 10,000,000 and write their number names.
2. Manifest understanding of place value of numbers up to 10,000,000 and expanded form of 5- or 6-digit numbers.
3. Arrange numbers from 10,000 to 10,000,000 in ascending and descending order.
4. Identify the numeral/numerals before, after and in-between any number from 10,000 to 10,000,000.
5. Compare numbers up to 10,000,000 using arithmetical signs.
6. Calculate highest common factor (HCF) of numbers of two digits not exceeding 100.
7. Calculate lowest common multiples (LCM) of two to three numbers, each of which does not exceed 10.
8. Add two to four, 5- and 6-digit numbers.
9. Subtract 5- and 6-digit numbers.
10. Multiply any number by a number up to 3-digits (with sum not exceeding 999,999.)
11. Divide a 4-digit number by a 2-digit number.
12. Use of unitary method.
13. Understand the meaning of average and be able to calculate it.
14. Find the average height/score/rainfall/attendance, etc from the given data.
15. Solve simple money problems including profit and loss.
16. Solve ordinary problems related to simple interest.
17. Convert standard units of length into each other.
18. Infer and measure simple straight and curved lines and distances in meters and centimetres.
19. Divide and multiply kilometres, metres and centimetres.
20. Solve problems related to standard units of weight.
21. Solve simple daily problems related to standard units of capacity by conversion of units.
22. Estimate small units of capacity in terms of non-standard measures and solve mentally daily-life problems.
23. Solve problems relating to area and using the formula.

24. Estimate and compare in standard and non-standard units the area of objects found in an environment.
25. Calculate the duration of an activity/event across a.m. and p.m.
26. Solve problems relating to time involving weeks, days, hours and minutes.
27. Arrange simple and proper fractions in increasing and decreasing order.
28. Reduce simple fractions to the lowest terms.
29. Add and subtract fractions and mixed number of fractions.
30. Add mentally combinations of fractions that occur frequently.
31. Divide and multiply fractions with denominator up to 10 and express the answer in its lowest terms.
32. Add decimals up to three decimal places.
33. Express units of length, weight and capacity in decimals up to three decimal places.
34. Multiply and divide a number up to 3 decimal places by a single digit number.
35. Convert fractions and decimals into percentages and percentages into fractions in lowest terms and decimals.
36. Draw a triangle, a rectangle and a square.
37. Draw a circle of a given radius with the use of a compass and a ruler.
38. Know various terms related to a circle and their relationships.
39. Identify whether a pair of simple figures are reflections of each other. Draw the line of reflection if it exists.
40. Identify in two simple figures whether one can be rotated or turned around to look like the other.

## **ENVIRONMENTAL SCIENCE**

### *Class II*

1. Understand the need of food for health.
2. See relationship between unclean food and water and diseases.
3. Appreciate why the house is an essential requirement.
4. Share activities to keep the house and surroundings neat and clean.
5. Observe and compare various kinds of shelters including those of animals, birds and insects.
6. Identify important public places in the neighbourhood and know their purpose.
7. Realize the importance of going to school.
8. Observe and list the occupations carried on in the locality and find out their usefulness.
9. Realize the importance of work in life.
10. Use sunrise and sunset to find directions
11. Relate the nature of weather with seasons and seasons with human activities, plants, birds, animals etc.
12. Identify main places from a local sketch map of the locality.
13. Recognize some common trees, birds, animals and crops, etc., of the locality.

14. Know about national festivals and other celebrations and their importance.
15. Understand the similarities and differences in celebrating national festivals and other celebrations.
16. Know about the national flag.
17. Sing national anthem.

### *Class V*

1. Recognize persons of bad habits and bad character.
2. See the relationship between crime and bad habits.
3. Know about measures to prevent crime.
4. Know how we govern ourselves.
5. Understand the role of and relationship between the central, state and local self-governments in simple situations.
6. Describe simple facts about the union/central government and state level governments and interpret the terms 'democracy' and 'union'.
7. Realize the importance of workers engaged in various activities.
8. Realize the importance of trade and commerce.
9. Know about local exports and imports.
10. Appreciate the existence of an increasing variety of occupations and interdependence among them in local and familiar conditions.
11. Identify continents, the equator and poles on a globe.
12. Locate India on the map of Asia with reference to the Indian Ocean and neighbouring countries.
13. Identify and clarify areas on a map on the basis of the main geographical features.
14. Describe main characteristics of the Indian climate.
15. Describe the importance of natural resources in India.
16. Describe the main crops of India.
17. Know the importance and location of significant places and routes in India.
21. Realize how we won freedom, and important personalities associated with the freedom struggle and how freedom needs to be protected.
22. Our development strategies in local settings.
23. Realize the need for full co-operation among all castes and religious group.
24. Be aware of the ill-effects of rapid population increase.
25. Know the major sources of disease and about the prevention of disease.
26. Acquire knowledge of First Aid.
27. Learn about forest conservation and methods to improve forest cover.
28. Learn about energy, work and sources of energy.
29. Describe the outstanding achievements of science and know about dangers from the misuse of scientific knowledge.
30. Realize the need for scientific ways of using natural resources.

## ANNEX III: Lessons from Uttar Pradesh Basic Primary Education identified for NFE special schools under NCLP

	First year	Second year	Third year
First 6 months	Second 6 months		
CLASS I	CLASSES II AND III	CLASSES III AND IV	CLASS V
<b>Language</b> <i>Bhasha Kiran-1</i> <i>Praveshika</i> (language-learning primer)	<b>Language</b> Proposed lessons of <i>Bhasha Kiran</i> (Books 2 and 3) (language books) <b>Mathematics</b> Proposed lesson of <i>Bal Ganit</i> (Books 2 and 3) (Mathematics) <b>Social studies</b> Two lessons of <i>Hamara Parivesh</i> (Book 3), 'Shairir ke Ang' and 'Chandan ka Gaon' (Environmental science)	<b>Language</b> Proposed lesson of <i>Bhasha Kiran</i> , (Books 3 and 4) (language) <b>Mathematics</b> Proposed lessons of <i>Bal Ganit</i> (Books 3 and 4) <b>Social studies</b> Proposed lessons of <i>Hamara Parivesh</i> (Book 3) and <i>Hamara Samaj</i> (Book 4) (EVS) Proposed lessons of <i>Hamara Parivesh</i> (Book 3) and <i>Gyan Vigyan</i> (Book 4)	<b>Language</b> <i>Bhasha Kiran</i> (Book 5) <b>Mathematics</b> <i>Bhasha Kiran</i> (Book 5) <b>Social studies</b> <i>Hamara Samaj</i> (Book 5) (Our society) <b>Science</b> <i>Gyan Vigyan</i> (Book 5)

## ANNEX IV: Lesson content of Uttar Pradesh Basic Primary Education for NFE special schools under NCLP in Uttar

First year		Second year	Third year
First six months		Second six months	
<p><b>Language</b> The whole of Book 1 of <i>Bhasha Kiran</i> will be taught in the first six months. This book has been prepared with an integrated approach. The skills essential for Class I will be developed through these lessons.</p>	<p><b>Language</b> The following lessons of <i>Bhasha Kiran</i> (Books 2 and 3) will be taught during the second six months:</p> <ul style="list-style-type: none"> <li>● Who made the sun and the moon?</li> <li>● Neighbourhood – lesson 2 ‘Shaair Ke Ang’ of <i>Hamara Parivesh</i> (Book 3) will be linked to this lesson.</li> <li>● How much learned (exercises)</li> <li>● The house of Maga</li> <li>● Fai</li> <li>● Boat sailed through</li> <li>● How much learned (exercises)</li> <li>● A Little Moon</li> <li>● The children of Jagatpur Village</li> <li>● Who I am</li> <li>● The Barat of Kadduoje</li> <li>● How much learned (exercises)</li> <li>● The village of Chandan- Parivesh-3</li> <li>● Our colleagues</li> <li>● Fairy</li> <li>● Our National emblem</li> <li>● How much learned (exercises)</li> <li>● Cock and Fox</li> </ul>	<p><b>Language</b> Following lessons of <i>Bhasha Kiran</i> (Books 3 and 4) will be taught in this year:</p> <ul style="list-style-type: none"> <li>● Kurta (Shirt) of the Moon</li> <li>● Puzzles</li> <li>● The teachings of Bapu</li> <li>● Root and flower</li> <li>● A vagabond turtle</li> <li>● How much learned (exercises)</li> <li>● The letter</li> <li>● Subhash Chandra Bose</li> <li>● India is my home</li> <li>● Stroke of luck</li> <li>● Teaching of nature</li> <li>● Kurta (Shirt) of the Moon</li> <li>● How much learned (exercises)</li> <li>● Brave Abhimanyu</li> <li>● Hai Me Hai</li> <li>● Circus</li> <li>● Bal Gangadhar Tilak</li> <li>● Bhakti Niti Madhuri</li> <li>● How much learned (exercises)</li> <li>● Onam</li> </ul>	<p><b>Language</b> Lessons of <i>Bhasha Kiran</i> (Book 5). This semester will be of one year. In this semester <i>Bhasha Kiran</i>, Book 5 can be taught as it is.</p>

<ul style="list-style-type: none"> <li>● Where is the Cloud, Uncle?</li> <li>● Seema trapped in the flood</li> <li>● The journey to Varanasi</li> <li>● How much learned (exercises)</li> </ul>	<ul style="list-style-type: none"> <li>● Gramshree</li> <li>● Mohammad Saheb</li> <li>● Akbar-Birbal</li> <li>● Letter to a daughter</li> <li>● How much learned-exercises.</li> </ul> <p><i>Note: The exercises given under ‘ how much learned’ will be changed.</i></p>
<p><b>Arithmetic</b></p> <ul style="list-style-type: none"> <li>● <i>Bal Ganit</i> (Books 2 and 3).</li> </ul> <p>During six months of this semester the children will be taught the following lessons of <i>Bal Ganit</i> (Books 2 and 3):</p> <ul style="list-style-type: none"> <li>● Our numbers</li> <li>● Numbers big and small</li> <li>● Addition</li> <li>● Bindiya’s shop (Subtraction)</li> <li>● How many times</li> <li>● How much share</li> <li>● Divide, Kankar, play a game</li> <li>● Lines and shapes (here teach two lessons together, tell them of lines first).</li> <li>● Exchange (find a way)</li> <li>● Measurement</li> <li>● Badki’s ribbon</li> <li>● Light and heavy things</li> <li>● Measuring with tumbler and glass</li> <li>● Tick-tick goes the clock</li> </ul>	<p><b>Arithmetic</b></p> <ul style="list-style-type: none"> <li>● <i>Bal Ganit</i> (Books 3 and 4).</li> </ul> <p>The following lessons of <i>Bal Ganit</i> (Book 4) will be taught at the beginning of this semester:</p> <ul style="list-style-type: none"> <li>● Numbers</li> <li>● Comparison of numbers</li> <li>● Addition of numbers</li> <li>● How much learned (exercises)</li> <li>● Subtraction</li> <li>● Multiplication</li> <li>● Division</li> <li>● Mixed operations</li> <li>● How much learned (exercises)</li> <li>● Point and line segment</li> <li>● Only numbers and numbers</li> <li>● Manoj’s account</li> <li>● How much learned (exercises)</li> <li>● Multiple</li> <li>● GCM</li> <li>● LCM</li> </ul>
	<p><b>Arithmetic</b></p> <p><i>Bal Ganit</i> (Book 5). In this semester the whole Book- 5 of <i>Bal Ganit</i> will be taught.</p>

- Years and months
- Half of half is one-fourth
- House of Numbers
- Numbers meet
- Addition
- Subtraction
- Multiplication
- Equal distribution of numbers

*Note:* The exercises given along with the lessons are inadequate. The teacher's attention will have to be turned towards this and they will have to be trained to prepare new exercises.

- How much learned (exercises)
- Fractions (adding and subtracting fraction by oneself)
- How heavy are things?
- Capacity
- Kuku jumps and measures
- Heat
- Decimals
- Use of decimals
- How much learned (exercises)
- Perimeter
- Time (by self)
- Calendar
- Teach Books 3 and 4 together
- Data.
- How much learned (exercises)

### Environmental science

- In this semester the following lessons of *Hamara Parivesh*, Books 3 and *Hamara Suraj* (Book 4), will be taught:
  - Our district
  - Self rule
  - The weather and us
  - Environment and pollution
  - The story of human development
  - Uttar Pradesh and Uttaranchal in India
  - Uttar Pradesh and Uttaranchal –

**Environmental science**  
*Hamara Suraj* (Parivesh)  
 In this semester *Hamara Suraj* (Book 5), can be taught as it is.



natural physiography and ways of living

- Uttar Pradesh and main cities of Uttaranchal
- Important states of India
- Administration of a region
- Few tales – *Hamara Parivesh* (Book 3)
- Some of our rulers
- Saints and poets

### Social science

*Hamara Parivesh* (Book 3) and  
*Gyan Vigyan*, Book 4:

- **Unit 1: Living things**
- Chapter 1: Different parts of a plant and their functions
- Chapter 2: Utility of plants and animals and their care
- **Unit 2: The human body**
- Chapter 3: The parts of the human body and their functions
- Chapter 4: Food and health joined with the lesson 'Food and health' of *Hamara Parivesh* (Book 3)
- Chapter 5: Environmental cleanliness and health

● **Unit 3: Matter and its properties**

- Chapter 6: The states, properties and structure of matter. *Hamara Parivesh* (Book 3), lesson 'Matter' should be joined with this.

### Science

*Gyan Vigyan*, Book 5,  
Fourth semester: one year.  
In this semester,  
*Gyan Vigyan* (Book 5),  
can be taught as it is.

- Chapter 7: Solution of matter and its separation
- **Unit 4: Air, water and weather**
- Chapter 8: The effect of sun on weather
- **Unit 5: Soil and crops**
- Chapter 9: Types of soil, crops and storage
- **Unit 6: Power, work and energy**
- Chapter 10: Power, work and energy
- **Unit 7: Earth and sky**
- Chapter 11: Solar system and nebulae/constellations. Before teaching this lesson, teach *Hamara Parivesh* (Book 3) lesson 'Achraj Bhara Aakash' (Amazing space) should be taught.

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Note: The exercises given under 'how much learned' will change. The teacher's attention will have to be turned towards this fact during training and they will have to be given knowledge of methods of making exercises.