

## Small NGO schools in India: implications for access and innovation

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In addition to the proliferation of private, fee-paying schools in India, non-governmental organisations (NGOs) play an important role in providing educational services, especially in un-served and under-served communities. This paper uses qualitative research to critically examine the nature and potential of NGO provision of primary schooling in India. In particular, it explores the contributions of one NGO programme which has sought to increase access for socially and economically marginalised children by establishing and providing support for small, rural, multigrade schools. The paper argues that NGO programmes like these have had positive impacts in terms of both access and quality because, firstly, the programmes are small-scale and locally rooted, and secondly, their organisation allows for greater flexibility and room for innovation in areas such as curriculum design, teacher education, and school networking than is commonly possible within government schools.

**Keywords:** non-governmental organisations; education; multigrade schools; India

### Introduction

Efforts to achieve universal primary education in India over the last several decades have resulted in the proliferation of small government schools in isolated rural communities. While these schools in principle represent a leap forward in terms of access, they tend to be characterised by the need for multigrade classroom management as a result of low enrolment and/or too few teachers, and usually face significant shortages in terms of teaching and learning resources and basic infrastructure. This frequently leads to poor educational quality, student and teacher disillusionment, high rates of drop-out and low rates of retention. These problems have been acknowledged in central and state government policies for educational improvement, and there is evidence that a sensitivity towards the concerns of small, multigrade schools may be growing, but currently state interventions remain severely limited.

A number of non-governmental organisation (NGO) programmes across the nation have attempted to provide effective support for small, rural, multigrade schools. In many cases, these NGOs provide children with access to primary schooling where the state has not been able to do so, or has done so poorly. As such, they are significant to discussions of access, quality, and poverty alleviation in India. Due to the scarcity of available research on NGO schools it is difficult to assess the scale of such programmes nationally, however, a few recent studies have begun to explore the relationships between NGOs and government, with particular reference

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to education (cf. Jagannathan 2001; Nair 2006). These studies have highlighted the potential of NGO programmes to provide useful models of educational innovation and good practice.

Due to the diversity of educational NGOs and programming in India it is not possible in the context of this article to assess the nature either of all existing programmes for small schools or to explore the multiple kinds of innovations which might be present in them. The research on which this article is based therefore focuses on four specific kinds of innovation: (1) approaches to multigrade teaching and learning, (2) improvements to school learning environments, (3) systems of teacher training and support, and (4) efforts to encourage stronger school–community links. Significantly, these are areas for school improvement which are frequently discussed within the international academic literature (cf. Blatchford et al. 2007; Khamis and Sammons 2007).

The article also speaks to a rapidly growing international literature regarding small schools and multigrade teaching and learning.<sup>1</sup> Issues surrounding appropriate curriculum development and teacher training for small government and privately funded schools have attracted research attention in a number of countries, and there is growing evidence that explicitly chosen and well-supported multigrade techniques can result in positive educational experiences and outcomes in small schools (cf. Little 2006; Pridmore 2007).

Since the mid-1990s, researchers and policy makers in India have also examined the concerns facing small, multigrade government schools across the nation (cf. Aggarwal 1997). One of the first studies, conducted by researchers at the National Council for Educational Research and Training (NCERT) in 1996, highlighted the need for increased attention to multigrade instructional strategies, to the design of appropriate multigrade curriculum and instructional materials, and to the need to incorporate multigrade into pre-service and in-service teacher training courses (Gupta, Jain, and Bala 1996). Later studies investigated the impacts of innovative classroom teaching techniques (Bharadway and Boda 1998; Swarnalekha 1999) and strategies for effective multigrade classroom organisation (Kamat 1998), as well as probing the difficulties which surround multigrade teaching, including the relative lack of official recognition, limited academic and financial support for innovations, and little pre-service or in-service training (Muthayan 1999). These studies revealed that in all of the research sites, innovative, well-planned multigrade strategies produced positive results. Based on these findings, the studies further identified a need to formulate training strategies for teachers working in rural, multigrade, government-funded primary schools, and to provide greater support for both teaching strategies and professional development. A large grey literature generated by NGO initiatives and international aid agencies working in India, such as UNESCO and UNICEF (cf. Shukla 1999; Kishore 2003), similarly indicates that well-planned, intentional multigrade strategies can provide high-quality education in small rural schools, and in turn can provide greater future opportunities for students living in impoverished circumstances. These programmes therefore deserve much greater attention from both research and policy.

### **Small, rural, multigrade schools in India**

Popular definitions of what constitutes a ‘small school’ can be found in the existing international research literature as well as in the policies of many countries and

donor agencies. Typically, such definitions are based around measurements such as the number of students enrolled, the number of teachers, and/or the number of classrooms in a school. In India, as elsewhere, however, such measurements often vary depending on the resource consulted or the particular context under discussion. For the purposes of the following analysis the term ‘small school’ is used to denote primary schools with enrolment of 100 or less students, three or fewer teachers, and/or two or fewer all-weather classrooms.

Such schools are a significant feature of the educational landscape in India, with approximately 78% of primary schools having three or fewer teachers to attend to all grade levels, and more than 55% with 100 or fewer students in 2005 (District Information System for Education (DISE) 2006). The ‘smallness’ of these schools is usually the result of low population density in rural areas, as well as the lack of sufficient teachers to fill posts in the nation’s approximately 1.04 million schools (DISE 2006, 8). The scale of India’s education system is such that these percentages are equivalent to a substantial number of primary schools – in 2005, the number of primary schools with 100 or less pupils enrolled was 415,357 (Little 2008, 9).

The frequent lack of sufficient infrastructure, resources, and support for isolated government schools has a large impact on their functioning and on the quality of education offered to students in these areas. For example, while schools are expected to meet curriculum requirements, teachers often spend a significant amount of time on tasks other than teaching. So, in addition to the inherent difficulties of working in economically deprived areas and with scarce resources, they may also be responsible for completing all of a school’s administrative tasks, arranging for the provision of mid-day meals (a nationally mandated government policy), maintaining records for attendance and periodic medical check-ups, conducting household surveys for the national census, and administering preventative polio medication.<sup>2</sup> While these issues are faced by all government school teachers in the country, they pose particular problems in smaller schools where there are fewer teachers to share responsibilities. Unlike their counterparts in larger schools, teachers in small schools are also expected to teach more than one grade level at a time. The difficulties of multigrade classroom management, scarcity of teaching and learning support (including opportunities for interaction with peers), and problems with sub-standard school and classroom infrastructure, all tend to result in unmotivated teachers, a low standard of education, and high drop-out rates.

Teachers in small schools also face a number of challenges which are common to teachers across the country. Interactions between teachers and students in schools across India, for instance, are complicated by prevailing caste, class, gender and linguistic divisions. These interactions are also heavily rooted in, and impacted by, the content and orientation of teacher education programmes and the organisation of curricula. According to experts at NCERT, trainee teachers in most states receive a largely theoretical and conceptual understanding of the profession through government-accredited schemes which are modelled on a vision of ‘ideal’ schools with large enrolment and a teacher for each class.<sup>3</sup> Government teacher training guidelines are set out in the National Curriculum Framework for Teacher Education, which individual states then adapt to suit regional and local contexts. The standard pre-service course in most states includes foundation papers on sociological, psychological and pedagogical issues (see NCERT 2006). Practice teaching experience is generally included in these programmes, but tends to be of relatively short duration, and is most commonly conducted in urban settings near the

sites of the training courses. In-service programmes also largely neglect to provide support regarding the specific managerial needs and requirements of small or rural schools, or of multigrade settings. As a result, teachers in small schools are left to use whatever strategies they are able to devise themselves. Most commonly, teachers in these circumstances resort to dividing their class(es) into grade groups and then dividing their time amongst them. As a result, while the teacher is attending to one group, the remaining students may be left with either busy work or nothing to occupy them at all; each grade group therefore receives only a portion of the allocated teaching day (see Little 2008 for further discussion).

A significant body of research suggests that the teaching method most commonly employed in government primary schools in India is recitation and memorisation of textbook material (cf. Kumar 1991; Sarangapani 2003; Pratham 2005). Learning over the school year follows the structured chapters of required texts, with little room for experimentation or creative development. The role of the teacher is thus a rather functional matter of passing on facts and information which must be mastered to pass examinations, with students given few opportunities for questioning or independent exploration. Such reliance on rote learning methods, and the top-down nature of teaching–learning interactions, tends to result in boredom and discomfort in the classroom, uneven achievement among students, and professional dissatisfaction for teachers. A recent revision of the National Curriculum Framework, which sets out the philosophical and theoretical underpinnings of the government education system and guidelines for curriculum areas and assessment that states are encouraged to adopt and/or adapt, set out to address some of these concerns. The current framework (NCERT 2005) was developed in consultation with a diverse group of professionals, activists and teachers across the country, and is a significant departure from earlier versions through its emphasis on active learning approaches. Policy makers interviewed for this research suggested that some progress had been made in this area, but that the full implementation of the framework's goals is a continuing challenge due to political struggles over education in the federal system as well as the need to create effective institutional structures to support a movement away from rote-learning methods.

Concerns about primary education quality have been widely acknowledged in central government and some state government policies for educational improvement. The national Janshala Programme (1992–2005), for instance, included a focus on improving multigrade teaching and learning in small schools. Efforts as part of the programme included exposing teachers to existing NGO multigrade initiatives, developing locally appropriate classroom materials, and encouraging peer-to-peer and group learning activities (NCERT 2007, 37–40). Unfortunately, when funding for Janshala ended, its replacement – Sarva Shiksha Abhiyan (SSA, the central government's overall programme for school improvement) – was unable to take up all of its predecessor's initiatives and many were either reduced in scale or ended (NCERT 2007, 42). A few SSA policy makers interviewed as part of this research expressed a continuing interest in developing a more robust set of training and resource initiatives for small, multigrade schools. As part of this effort, SSA officials have made two visits to the well-respected Escuela Nueva programme in Colombia (see Colbert, Chiappe, and Arboleda 1993) to exchange ideas and discuss common challenges. It is difficult to predict, however, whether these initiatives will be taken up more fully within the government education system.

Interviews suggested that widespread negative associations with multigrade teaching have had a significant impact on how and where they have been taken up in policies and schools. Policy makers identified the root of these negative associations as the fact that the term has often been used by government agencies to refer to situations in which teachers must manage very large classes (over 100 in some cases) of multiple age or grade levels. The understandable problems faced by these teachers have not, however, been addressed with sufficient training or support strategies. As a result, the term has become synonymous with the problems of large, multiple-grade classes rather than with small schools, and many both inside and outside of government have come to view multigrade as a means by which the state has attempted to avoid its responsibility to hire sufficient numbers of teachers.

Some limited recommendations for a multigrade system for small, rural government schools have been included in national education policy in India since the mid-1960s. Two small efforts to improve in-service training were established as part of the National Education Policy in 1986, and a theory-based module on multigrade strategies is now included in NCERT's recommended teacher education framework. However, a review of the National Education Policies (1968, 1986 and 1992) reveals that even by the time of the earliest policy, arguments were being made for the establishment of a common school system based on a graded model and accompanied by a standardised national curriculum.

Some of the most effective programmes to address concerns in small, multigrade schools have been spearheaded by NGO campaigns to improve education provision and retention in rural areas of India. These programmes have made a virtue of 'smallness' by designing appropriate multigrade teaching and learning methodologies, providing effective training and support for teachers, and strengthening the links between schools and communities (see Blum and Diwan 2007). They are also part of a larger collection of programmes by NGOs and community activists who work to improve the quality of teaching and learning in Indian schools (cf. Ramachandran 2003; Koul 2002). While these programmes do not represent a single, easy solution to the complicated concerns which surround small, rural, multigrade schools, this research suggests that programmes can provide significant spaces for innovation and improvement.

### **Research strategy and methods**

Data collection for this research was conducted over 10 weeks from February to April 2007. A range of research methods were utilised, including a review of relevant literature and policy, an analysis of available quantitative data on small schools in India, a series of interviews with national policy makers in Delhi, and a qualitative case study of an NGO programme working in small, rural, multigrade schools. Policy makers interviewed included government employees working in Sarva Shiksha Abhiyan and the National Council of Educational Research and Training, staff of international aid organisations such as UNICEF and DFID, and academics at Delhi University and Jawaharlal Nehru University. The interview format was semi-structured according to a planned set of subjects for discussion, but space was provided for discussion of any other related topics linked to the interests and expertise of interviewees.

These national-level interviews were complemented by a qualitative case study of the work of the Rishi Valley Institute for Educational Resources (RIVER). This

study provided insights into the issues faced by small, rural, multigrade schools. It also highlighted the potential benefits and limits for NGO innovations to produce positive results in rural communities and to inspire change in government institutions. The case study included a review of relevant academic and grey literature, as well as of the programme's own reports and publications. Visits were made to the NGO's offices and several participating schools, where interviews were conducted with the programme directors, co-ordinator and school educators. In each school, teachers and students were informally asked a series of questions and observations were made of the school building and grounds, the classroom set-up, and any learning activities taking place at the time.

Due to the limited time frame of the research, as well as a number of issues regarding research access to schools and programmes, it was not possible to explore the work of the many NGOs working on these issues in India. Equally, the short time available to conduct the case study has implications for the discussion and analysis which follow. Specifically, only short visits to the school sites were possible, which somewhat restricted opportunities for in-depth observation of how policies and programmes are implemented in practice. Given these circumstances, the research relied partly on the first-hand accounts and perspectives of teachers and NGO staff who are directly involved in the NGO's programmes. It is, of course, impossible for any research project to deal with all possible issues of concern, and further detailed qualitative research in the area would likely reveal issues that are not included in this discussion. Nevertheless, it is intended to provide a useful basis for promoting greater understandings about small NGO schools as spaces for innovation and quality improvement in India.

### **Rishi Valley Institute for Educational Resources, Andhra Pradesh**

Andhra Pradesh, the fifth largest state of India, is situated in the south-east of the country on the Bay of Bengal. Although perhaps most well-known for its connections to the international IT industry, much of the state's population continues to depend on agricultural production for survival. As in many other states, the economic disparities between urban and rural areas are marked. Nearly 49% of schools in the state have enrolment of 50 or fewer students (DISE 2006, 61), and the average primary school enrolment is 87 students (DISE 2006, 63), placing a significant number within the categorisation of small schools. In 2004–5, just over 83% of schools in the state were located in rural areas, representing 71% of total student enrolment (11,122,940 students; DISE 2007a, 2007b). With an average drop-out rate across the five grades of primary education of just over 22%, Andhra Pradesh also has the nation's highest drop-out rate at the primary level (DISE 2006, 139). As such, the issue of rural small schools is particularly relevant to education provision in the state.

The Rishi Valley Education Centre, established in 1931, is located in a sheltered valley in Chittoor District, Andhra Pradesh about 140 km north-east of Bangalore. The valley and surrounding area are in the rural interior of South India, in an area of chronic drought, and are populated by marginal farmers, shepherds and daily wage labourers. The Rishi Valley Education Centre itself is composed of several units of activity, including a central fee-paying school (Rishi Valley School, RVS), the rural education centre and a rural health clinic. The entire organisation is run by the Krishnamurti Foundation India, and takes its holistic educational philosophy from the work of its founder, Jiddu Krishnamurti (see Thapan 1991).

The rural education centre – the Rishi Valley Institute for Educational Resources (RIVER) – was first established in the late 1970s in order to provide schooling for the children of RVS employees from nearby villages. In the early 1980s, the current organisers were hired to organise and expand the rural education programme. An assessment of the existing government schools in nearby villages uncovered serious issues with their management and with the quality of education on offer. The small size of these settlements resulted in small schools that were unlikely to ever have enough students to justify the establishment of large, monograde schools (with graded classes and one teacher per grade). In 1987, RIVER received a grant from the Department of Education, Government of India to develop an alternative model of education in order to address existing problems in these schools. As a result, RIVER began to develop a locally sensitive, child-centred multigrade teaching methodology which would suit the needs of rural students, teachers and parents.

The first version of the resulting ‘School in a Box’ was published in Telugu (the dominant local language) in 1993. An internal evaluation suggested that the programme had significantly reduced drop-out rates, increased interest in academics from students and parents, increased enrolment in class six, and resulted in high pass results on the class six examination. RIVER now runs 12 one-room ‘satellite’ schools in neighbouring communities, and has continued to revise and reformulate its rural, multigrade teaching programme in response to local needs. The programme is funded from student fees paid to the central RVS.

Interest in the programme has since grown both in other parts of India and internationally. Firstly, with grants from the central and state governments, RIVER has helped to develop and implement similar multigrade systems for government schools in Tamil Nadu, Karnataka, Kerala, Uttar Pradesh, Assam and Maharashtra. In 2003, a large-scale agreement was also established between RIVER, the Government of India, and UNICEF to implement the Rishi Valley methodology in 12,000 government schools in 12 states. Additional international funding has also been secured to develop programmes in Ethiopia, Germany, China, Sierra Leone, Nepal, Sri Lanka, Mexico, Kenya and Pakistan.

RIVER’s innovations have taken four particular forms: development of a new pedagogy and approach to multigrade teaching and learning in small schools, improvements to school learning environments, an effective system of teacher training and support, and promotion of programmes to develop stronger relationships between schools and communities.

### **The RIVER methodology**

According to RIVER organisers, when the programme began in 1987 local primary schools were characterised by high rates of drop-out, a scarcity of teachers and resources, and a heavy reliance on rote-learning methods. In response, RIVER educators developed a set of materials that would be appropriate to the language and local customs of the community, as well as for teaching in a multigrade classroom. The existing state government textbook was deconstructed, and the required subject content of each chapter reorganised into a set of learning activities. In order to make the materials locally relevant for students, local stories and images were used as tools for learning to read, to understand new vocabulary, and to make calculations. Activities are arranged in a sequence of five types – introductory, reinforcement, evaluation, remedial and enrichment – which students to follow at their own pace.

The end of each sequence (nominally a chapter of the government-mandated textbook) denotes a 'milestone', and a series of milestones forms a 'learning ladder'. There are four sets of learning ladders which cover the state primary curriculum from class one to class four, with separate ladders for language, mathematics and environmental studies at each level. In class five, teaching and learning are split between activity-based learning techniques and more traditional textbook work, in order to begin preparing students for the transition to upper primary school.

Although students often do complete an entire learning ladder over the course of one academic year, there is no pressure for them to do so. Students may progress more quickly in some subjects than in others, for example, and it is up to the teacher to keep track of individual students' movement through the milestones. The system is thus designed to allow for individual learning development. It also allows students who may be absent for extended periods due to illness or family commitments (including festivals or required agricultural labour) to take up their studies where they left off without having missed the teaching of particular content.

Students track their own progress through the learning ladders posted in the classroom. Activities are coded with familiar symbols (plants and animals) on a set of activity cards, which students complete in their own time. The activities are sequenced so that several styles of learning – including teacher-led, group-led or self-guided – are encouraged. The classroom is organised into groups to correspond to these learning styles, and a table is designated for each. Symbols are placed on the tables to correspond to those on the activity cards so that children can match their current activity with the place in the room where they should complete it. This means that students of varying age and ability levels circulate around the room, interacting with the teacher and supporting each other in their assigned tasks. In this way, teachers can monitor both individual progress and classroom interaction. Each child's learning progress is recorded in a folder which contains the teacher's notes about their progress and examples of their work.

### **Improved learning environments**

RIVER has also made an effort to improve learning environments in their schools more generally. In contrast to the dry and dusty countryside surrounding them, for instance, school grounds at the RIVER schools visited were neatly landscaped with native trees and plants, and included play equipment made from recycled materials (a tyre swing, a see-saw made of reclaimed wood, a slide of reclaimed metal, etc.). The school buildings are simple, white-washed, one-room constructions, with concrete floors and metal roofs. Most sites contain two buildings – one for the main classroom, and another, smaller building for independent play and/or activities for pre-school age children. The entire complex is surrounded either by a fence or a boundary wall, to provide for the safety and security of the children.

The classrooms themselves are also designed to support and encourage creativity and learning of many different kinds. The walls are covered with students' work and pieces of writing, and student artwork is displayed on strings attached to the ceiling. The lower half of the classroom's walls are covered with a blackboard surface, and each student is given a section of the wall which they may use in any way they like. Students in the schools visited had chosen to draw pictures or to practise writing letters and words, for example, and proudly displayed their work to interested visitors. Such room for creativity is, by contrast, often absent in small, multigrade

government schools, where teachers are more likely to struggle with classroom and curriculum management, and a lack of essential resources and support.

### **Teacher training and support**

When RIVER first began developing its methodology in the late 1980s, it was noted that most local teachers lived outside the village where they worked, and often encountered significant problems arranging daily transportation to isolated villages. Absenteeism was frequent, either as a result of these transportation issues or due to more general frustration about the lack of support for teaching and learning, and the scarcity of resources in schools. To counter this, RIVER began to recruit and train young people with minimal qualifications already living in the villages. It was felt that these young people would have a greater commitment and enthusiasm to working in their own communities, that practical problems such as transportation would not be a problem, and that they would have greater accountability to local students and parents (Rao and Rao 2006).

Once trained, RIVER teachers are also more heavily involved in curriculum and activity development than they are likely to be in government schools. When a new RIVER school is opened, for example, teachers are invited to attend a 10-day residential course, where they make visits to existing schools and then begin to develop their own teaching and learning materials in the RIVER style, but using the appropriate language and resources for their community. Teachers are in this way provided with significant opportunities for involvement in curriculum development. Their own professional knowledge and experiences are respected and implicitly seen as relevant and important to classroom learning. This stands in contrast to the distant relationship which most government school teachers have with national curriculum guidelines – which are developed and distributed by central and state government policy makers largely without consultation.

More generally, RIVER educators also argue that teachers should have a much wider role in the communities in which they work than is commonly noted in primary teachers in India (cf. Sarangapani 2003). Rather than adopting an authoritative role as the holder of knowledge and facts which must be passed on to students, RIVER teachers are trained to become facilitators and to create an environment in which students can learn and ask questions freely. This role is supported by RIVER's administrative co-ordinator, who makes frequent visits to the schools to monitor activities and provide support, and other RIVER staff. The organisations' teachers are expected to draw on local resources to enrich the curriculum and to plan learning activities outside the school, including field trips and village surveys. In this way, the community is drawn into the life of the school and parents are able to both assess their children's educational experience and to more easily interact with teachers.

### **Developing school–community links**

In one school visited, for example, a group of children gave a guided tour of their school grounds, pointing out and naming various plants and trees. Their teacher commented that they had been encouraged to learn to identify these plants in other parts of the village as part of their work in environmental studies. The school day runs from 8 am until 4 pm, so she arranged her daily schedule to provide language

and mathematics learning in the morning and environmental studies and arts and crafts in the afternoon. These afternoons were therefore often used for field trips into the village where students are given tasks such as to observe (and later write about) plants and animals, to identify and count a particular item, or to watch a parent going about their daily work. The teacher had also invited parents to come into the school to speak to the children about the jobs they do, or to see their children's schoolwork.

RIVER teachers and educators also work to strengthen links between schools and communities in other ways. For example, when a new RIVER school is established, the organisation provides building materials, a trained teacher, classroom furnishings and supplies, and a set of teaching and learning materials. The village is asked to provide the plot of land on which it will be built and to participate in landscaping the school grounds and cultivating plants and trees. Participation of local women is encouraged through formation of 'mothers' committees' which conduct a range of activities, including cooking the mid-day meal, organising forums for discussion of health and hygiene, identifying potential teacher trainees and substitutes, and consulting with the teacher about children at risk of dropping out (Rao and Rao 2006).

### **Evidence of success**

Since the first 'School in a Box' programme was established in 1993, evidence has suggested that the programme has both positive educational and social impacts. In educational terms, RIVER reports that the Rishi Valley satellite schools have significantly reduced drop-out rates and increased enrolment in the upper age groups, and also that higher percentages of students now pass the class six government exam. Government policy makers at the national and state levels frequently cite the programme as an example of success, and states which have taken up the methodology have also reported positive results. In Tamil Nadu, for example, only a few schools originally implemented the programme, but positive improvements led the state to take it up in all schools. According to RIVER organisers, after only one year of implementation, approximately 75% of students in the Tamil Nadu programme tested within expected competencies for their age group, as opposed to only 25% of their counterparts in government schools.

Educators at RIVER and in the satellite schools also point to the positive social impacts of the programme in Rishi Valley. This includes indications that growing community involvement in the schools has resulted in marked improvement to adult literacy rates, health and welfare. Furthermore, the 'most telling indicators are the well turned out, healthy, and bright children in our schools who are sons and daughters of some of our own ex-students' (Rao and Rao 2006). These impacts have been particularly significant for local women, with RIVER educators noting that the children of women who have attended their schools in the past have noticeably improved health and welfare and are more likely to regularly attend and stay in school themselves.

### **Limits to innovation and implementation**

The apparently positive aspects of RIVER's programmes are, of course, accompanied by some weaknesses. In particular, RIVER educators noted that

because the programme centres on organising single-teacher schools, the success or failure of a school is largely reliant on the abilities and motivation of a single educator. While the programme does provide significant support for teachers, the role of the teacher in organising these schools and in maintaining strong school–community networks can be quite a demanding one, making teacher burn-out or lack of commitment a real concern.

Similarly, the greater involvement of community members and parents in the running of schools can potentially have both positive and negative impacts. Drawing parents into the schooling process can result in increased support for schools, and can also have indirect impacts on local health, adult literacy and women's participation. At the same time, existing tensions between individuals in the community or a lack of understanding of or support for the schooling process (particularly for parents who did not have access to formal schooling themselves or who require their children's labour in the household) can hinder the work of teachers and schools.

The financial and human resources required to implement the RIVER methodology can also appear to be larger than standard mass education provision, and this may discourage its application. Firstly, the creation of specific, locally relevant activities requires a significant input of labour and time from teachers and programme co-ordinators – an idea which some policy makers may deem too expensive or inconvenient, especially when replicated repeatedly. Classroom materials such as activity cards and learning ladders (largely made of laminated paper) are inexpensive, but have relatively short life-spans in comparison to text books. Furthermore, teachers in isolated schools need continuous support, which may be expensive in terms of both human and financial resources. An important study by Bray (1987), however, challenges the idea that small school programmes are necessarily more expensive than mass schooling models, arguing that decisions should not simply be based on calculations of cost per unit/student but of 'cost effectiveness'. In low population areas where there are few children, the unit cost of a high-quality monograde primary school (with five classrooms and five teachers) is clearly prohibitive. The alternative cost of a high-quality multigrade model which increases educational access in isolated and impoverished areas is therefore worth serious consideration both by NGOs and government agencies.

Finally, while RIVER's innovative strategies appear to work well on a small scale where close monitoring and support are possible, the programme's innovations may prove difficult to scale up. Evidence suggests that efforts to implement the methodology in other states of India have been positive, but further in-depth research is needed to determine the potentials and difficulties of establishing the programme on a larger scale.

## Conclusions

The case of RIVER, and particularly its apparent success in raising attendance, completion and retention rates, highlights the significance of NGO programmes as part of efforts to achieve universal primary education in India. As of yet, however, the evidence of these positive impacts has yet to be thoroughly researched. Of particular interest in the future would be more systematic assessments of changing levels of access to education in primary and higher levels, and greater attention to changes in local equity issues, especially in terms of gender dynamics and their

impacts on child health and welfare. Comparative work which explores similar projects in other countries (e.g. BRAC's programmes in Bangladesh and Escuela Nueva's work in Colombia) or other parts of India (e.g. projects such as Digantar and Bodh Shiksha Samiti in Rajasthan, Eklavya in Madhya Pradesh, and Nali Kali in Karnataka) could be very useful in developing these analyses.

A limited number of collaborations between NGOs such as RIVER and government authorities have already begun to result in small changes to existing government educational structures. More will need to be done, however, to strengthen these collaborations, particularly as NGO initiatives are susceptible to the vagaries of both political support from government and financial support from private interests. As Jagannathan (2001) concludes, while many NGOs are keen to share their successful models, government has yet to fully recognise them as partners in educational improvement. Furthermore, while the RIVER model offers a largely positive example of NGO practice, given the diverse nature of NGO interventions and collaborations across India, more research is needed to examine the specific nature and implications of programmes for small, multigrade schools.

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### Notes

1. See [www.ioe.ac.uk/multigrade](http://www.ioe.ac.uk/multigrade).
2. There is some disagreement about the amount of time devoted to these responsibilities. Teachers and staff interviewed for this research frequently cited frustration at the large numbers of days which were spent on them. However, while some studies (PROBE Team 1999; World Bank 2001) cite substantial amounts of instructional time occupied with non-teaching activities, data from India's District Information System for Education (DISE 2006) suggests that they take up a relatively small amount of time.
3. Due to limitations of space, this discussion will focus on accredited teachers, and will not address issues related to the large number of untrained 'parateachers' found in many states of India (cf. Govinda and Josephine 2004).

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