



Mobile Pastoralists and Education: Strategic Options

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Foreword

Learners from nomadic pastoralist communities face peculiar difficulties in accessing and continuing with education programmes whose designs suit sedentary communities. Standard curriculum delivery services which are designed for the majority are tailored for 'static' situations where children learn in classrooms in permanent locations. The importance of mobility and young people's labour to pastoral production, the low population density of many arid areas, and the challenge of ensuring that a national education system is relevant to pastoralists' needs and values are just some of the reasons why educational participation and achievement is often much lower in pastoral areas of many countries in Africa than the national averages. The situation is worse for girls. This is certainly true of Kenya.

The Government of Kenya recognises these difficulties and is committed to overcoming them. This is essential if we are to meet the Millennium Development Goals. The International Institute for Environment and Development (IIED) is supporting the Government in creating, testing and rolling out a strategy whose primary objective is to ensure that all out-of-school children of school-going age from nomadic populations at primary level access quality education services.

This publication is the first of many pieces of research which will help the Government develop informed, creative and practical solutions to the challenges of delivering education to nomadic pastoralists. This literature review, along with other forthcoming papers on the social, technical, economic and legal aspects of nomadic education, is of vital importance in the development of an education strategy that is responsive to the needs of Kenyan pastoralists.

I thank the authors Saverio Krätli and Caroline Dyer for the thoroughness and dedication they have shown in carrying out this review, and also Professor Jeremy Swift and the Education for Nomads programme staff for their support to the overall work.

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Contents

Executive Summary	1
Acronyms	3
List of Boxes	4
Introduction	5
SECTION 1: Current Approaches to Education and Schooling	
Education, schooling, learning and rights: what is meant?	7
The cost of school-based education: a trade-off with informal education	12
Getting the balance right: understanding the ‘trade-off’ between school-based education and pastoral production	13
SECTION 2: Innovative Approaches to the Provision of Education for Nomads	
Family learning	16
Open and Distance Learning as a way forward	17
Open Learning: a premise about concepts and language	18
Primary level distance education	20
Formal education and curriculum relevance	20
Blended learning: the role of community radio and ‘edutainment’	23
Entertainment education	24
SECTION 3: Conclusion	
Towards the implementation of these ideas (shared issues and international networking)	26
REFERENCES	27
Annex 1: South Asian experience of nomadic education	33
REFERENCES	43
Annex 2: African experience of nomadic education	45
REFERENCES	64

Executive Summary

Educating nomadic peoples in the context of rapid global socio-economic change is a challenge of massive proportions. This paper sets out to address this challenge in two ways: firstly by mapping the conceptual terrain of education; and secondly by highlighting those successful and innovative approaches to education provision around the world that can inform and inspire new approaches to nomadic education

Mapping the conceptual terrain is a prerequisite to approaching the complex and often sensitive and controversial set of issues relating to nomadic education, and will help to avoid the many pitfalls in current thinking. Section 1 of this paper identifies three areas of conceptual confusion. The first one concerns the popular understanding of education, schooling, learning and rights. The other two look at the trade-offs between school-based education and informal education, and between school-based education and pastoral production.

The focus on education in the World Declaration of Human Rights and the World Declaration on Education For All has translated into a focus on primary school enrolment in the education targets of the Millennium Development Goals. The notion of 'schooling' has also expanded and become more nuanced (e.g. 'home schooling'). Today, the target of ensuring that all children can 'complete a full course of primary schooling' does not necessarily imply getting them into school buildings. Throughout this paper we use both the terms 'education' and 'schooling' in the broader sense in order to focus on the achievement of education goals, rather than restricting the means. When referring to education relying on the use of buildings we use the terms 'conventional schools' or 'conventional schooling'. We use 'school-based system' to mean an education system based on conventional schooling. The practical challenges in providing education to nomads appear to be rooted in the tendency to provide formal education solely in a school-based system.

School-based learning necessitates a trade-off between the formal educational experience provided by the conventional system, and the fundamental, informal learning opportunities available to children as members of a wider caring and complex social network. Such informal learning is crucial to a child's development. Typically, for children from nomadic households, there is an exceptionally unfavourable trade-off in curtailing informal learning and enduring forced separation from their family environment in order to seek the advantages of formal education within a school-based system. Since the history of modern education is largely a history of school-based education, the institutional interest in children's learning has been shaped by this narrow perspective. It is crucial to think outside this box and find ways to link mainstream education to the contexts and processes of informal learning, so that informal learning can be harnessed and woven into mainstream education, rather than lost from the system.

Ultimately, school-based education conflicts with household functional-mobility patterns which, in dryland areas are key to enhancing animal production. No expansion or improvement of the current school-based system seems likely to be able to avoid this negative impact on the efficiency and reliability of the pastoral production system.

Following from these general considerations, section 2 of this paper moves on to discuss a range of successful innovative approaches to the provision of education in remote areas that have strategic relevance to the education of nomadic populations. These approaches are grouped under three headings: family learning, open and distance learning (ODL), and core curriculum. The paper also discusses the use of radio and media messages in the provision of education, and the benefits of 'edutainment'.

The 'family learning' approach considers learning to be a social undertaking. Literacy programmes based on this approach combine adult basic education for parents with education for children. Because intergenerational learning already plays a strong role in knowledge transfer within nomadic communities, family learning appears to offer a good fit with existing socio-cultural norms (therefore avoiding the negative trade-off involved with school-

based education). Key principles include community consultation and the design of a menu of activities that allow families choices to fit their specific and differing needs.

Open learning seeks to remove all unnecessary barriers to learning, based on the principle that the provision of education must be flexible to enable as many people as possible to take advantage of learning opportunities throughout their lives. In the case of nomadic peoples, limiting the formal education system to traditional schooling is an unnecessary barrier to learning. Distance learning aims to enable as many nomadic people as possible to take advantage of learning opportunities. Face-to-face contact between teachers and learners, and the use of a fully recognised formal curriculum should still be integrated within distance learning programmes. The quality of distance learning programmes is determined by their educational effectiveness and economic sustainability, not by the level of technological advancement. Technology should be simple, easily affordable and scalable. The reason for introducing a distance learning system should be to enhance educational effectiveness where the school-based system is a barrier to learning. The option should therefore be justified on educational not on economic grounds. Past experiences of distance education have struggled to get away from the school-based model of teaching and learning, therefore missing educational opportunities that belong only to the sphere of informal learning. For example, most distance education systems simply use radio and television as a replacement for the teacher, adapting messages that come from a school-based understanding of learning. However, experiences in community radio education and entertainment education have explored the possibility of educational strategies that are rooted in the process of communication and so have been able to exploit a whole different set of resources in this new dimension. The further development of these ideas offers interesting opportunities for designing a distance learning system that specifically targets nomadic people. In order to maximise the returns of the state's and the parents' investment, an ODL system should make use of the formal education curriculum.

The need to guarantee nomadic children a formal education in the same subject areas as the other school children in the country has to be matched with a concern for relevance. Making national curricula relevant to groups other than those they were historically designed for (and by) is not achieved simply by adding 'relevant' topics (from the same centralised perspective). A curriculum becomes 'relevant' to pastoralist children by tackling the foundation subjects from the perspective of pastoralists' daily reality and pre-existing knowledge, as constructed by pastoralists themselves. Relevance cannot be achieved at central level and cannot be permanent. It is crucial to build capacity (to meet these requirements) within all the institutions concerned with pastoralism and education (at all levels). The institutional understanding of pastoralism needs to go beyond the pastoralism-as-a-lifestyle perspective and come to terms with the reality of pastoralism as a productive force.

Finally, in section 3 the paper calls for a shift of focus from tactics to strategy in the ways that ministries of education approach the challenges of including pastoralists and other mobile populations in their education systems. In the famous definition of military theorist Carl von Clausewitz 'tactics is the art of using troops in battle; strategy is the art of using battles to win the war'. There is growing awareness that the challenges faced in providing education to nomadic populations cannot be dealt with as part of the standard activities of ministries of education. Sparse tactics, such as new programmes tacked onto the traditional school-based system, whilst leaving the system untouched are simply not enough. Including nomads in Education For All requires dedicated frameworks with a specific focus and a specific set of competencies aimed at meeting this specific challenge. Above all, it requires a shift in focus from tactics to strategy: a new national strategy. Educational inclusion is only realised when it genuinely includes everyone.

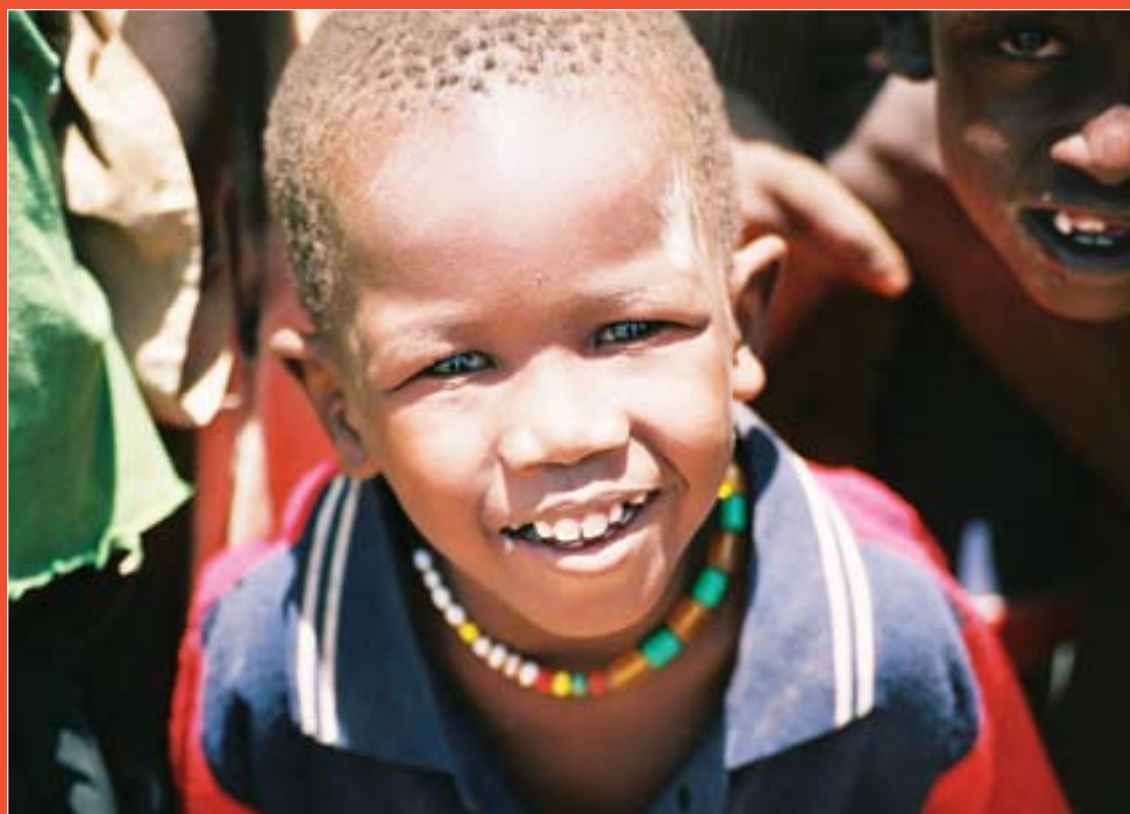
Acronyms

ABE(K)	Alternative Basic Education (for Karamoja)
ACPO	Accion Cultural Popular Colombia
AET	Africa Educational Trust
CR	Community Radio
CREW	Children's Radio Education Workshop
DFID	Department for International Development (UK)
E-E	Entertainment education
EFA	Education For All
ICT	Information and communication technology
IIED	International Institute for Environment & Development
IRI	Interactive Radio Instruction
KCPE	Kenyan Certificate of Primary Education
LARS	Literacy for Advocacy, Rights and Skills
MDG	Millennium Development Goal
MEBA	Ministère de l'Éducation de Base et de l'alphabétisation
MOE(K)	Ministry of Education (Kenya)
NCNE	National Commission on Nomadic Education (Nigeria)
NFE	Non-formal education
NGO	Non-governmental organisation
NSP	National Solidarity Programme (Afghanistan)
ODL	Open and Distance Learning
PAR	Participatory Action Research
PRSP	Poverty Reduction Strategy Paper
RLEK	Rural Litigation and Entitlement Kendra (India)
SACMEQ	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SIRIP	Somali Interactive Radio Instruction Program
SOMDEL	Somalia Distance Education Literacy
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
WDEFA	World Declaration on Education For All

List of Boxes

Box	Title
1.	EFA really is FOR ALL
2.	The EFA and MDG agendas compared
3.	Challenges in the current system of education provision to nomadic peoples
4.	Informal learning and education
5.	Shifting our perspective
6.	Family primary education by radio
7.	Four dimensions of curricula
8.	Checklist for a sound school-level ODL approach
9.	Building education on communication
10.	Community radio
11.	How many are there? The counting dilemma
12.	Nomads' contribution to the Afghan economy
13.	The Gobi Women's Project
14.	Nomads and education: a rising wave
15.	Beyond the nomadic/sedentary divide
16.	Mobility in a nutshell
17.	school education and animal production
18.	Teaching pastoralists
19.	Instruction in the local language (Ethiopia)
20.	A pastoralists' boarding school
21.	School and socialization
22.	Teaching in a Mobile School
23.	Mobile Schools
24.	Heart & Soul
25.	Education & communication: the CREW project
26.	A Rendille Camel-management textbook

Mobile Pastoralists and Education: Introduction



Introduction

‘The fundamental problem of education with pastoral people [...] is [...] creating something they believe in [...] something they can really participate in as their own, right from the beginning’ (John Mpaayei, in Nkinyangi, 1981: 195).

In 1948, education was agreed by the United Nations to be a fundamental human right (UN-DHR, 1948). This is a right that, across the globe, and despite decades of effort, remains unrealised for many people. This global failure provides a continuing stimulus to review past progress and future prospects in making this right a reality for everyone. At present, international attention is closely focused on the pending deadline of achieving the second Millennium Development Goal (UN-MDG, 2001) for education by 2015. As progress is made in attracting children to school, it is becoming increasingly clear that nomadic groups challenge the likelihood of success in achieving this goal. They do this at two levels. Firstly, including nomads is clearly a huge practical challenge, and secondly it is also a conceptual challenge. Patterns of the inclusion and participation of nomads in formal education suggest that their perceptions and experience ‘provide critical insights into the nature of education as a concept, and as a practice’ (Dyer 2006a: 3). This paper will show that successful policy is possible, and that progress is being made – but only when both aspects of educational provision for nomads are considered at the same time.

Educating nomadic peoples in the context of rapid global socio-economic change is a challenge of massive proportions (Krätli, 2001; Carr-Hill and Peart, 2005; Dyer, 2006a and 2006b). This paper sets out to address this challenge in two ways. Firstly, it maps out the conceptual terrain, analysing the key debates in relation to terms that are often misleadingly used as if they were interchangeable – education, schooling, and learning. Greater clarity on terminology, and its underlying assumptions, shows how the educational marginalisation of nomadic groups has been created, and sustained. Secondly, building on this analysis, the paper reviews successful and innovative approaches to education provision around the world that can inform and inspire new approaches to nomadic education. As old assumptions are challenged and corrected, obstacles that previously seemed insurmountable can be overcome.

Section 1

Current Approaches to Education and Schooling



Education, schooling, learning and rights: what is meant?

There is frequent ambiguity in policy circles, reflected in some of the academic literature written by non-education specialists, about what is meant by 'education'. There is a tendency for example to use the term 'education' when what is really meant is 'schooling' (and often formal primary schooling) as if these were interchangeable terms. They are not. Education refers to 'an act or process of acquiring knowledge', whereas schooling is more narrowly defined as 'the process of teaching or being taught in a school'¹. Narrowing of the broader notion of 'education' to mean 'schooling' has important implications and should not go uncontested.

When defining the right to education, the Universal Declaration of Human Rights makes no mention of schools or schooling. It states that, while 'elementary education shall be compulsory [...] parents have the prior right to choose the kind of education that shall be given to their children' (UN-DHR, 1948: Art. 26). An examination of key passages from twelve UN documents defining the legal framework of children's right to education makes no reference to schooling (SCF, 2001).

In 1990, the World Conference on Education For All (EFA) further reinforced this position, proposing a holistic, broadly conceived vision of Education For All (see Box 1). Article 5 of its Declaration (WDEFA) stresses the need to broaden the means and scope of basic education, and while formal schooling is seen as the main vehicle for delivery of universal primary education, the WDEFA maintains a clear distinction between schooling and education, stating explicitly that 'supplementary alternative programmes can help meet the basic learning needs of children with limited or no access to formal schooling, provided that they share the same standards of learning applied to schools, and are adequately supported' (WDEFA 1990: 4).

Box 1. EFA really is FOR ALL

Girls and women have not had equal opportunity to access basic education. Today over 55% of children out of school are girls, and fully two-thirds of adults without access to literacy are women. Special efforts – from recruiting female teachers, to supporting poor families, to making schools more girl-friendly – are needed to redress the balance. Other groups have also been neglected: indigenous populations and remote rural groups, street children, migrants and nomads, the disabled, linguistic and cultural minorities – to name but a few. New approaches must be tailor-made for such groups – we cannot expect to reach them just by increasing opportunities for conventional schooling.

(Source: <http://www.unesco.org/en/efa-international-coordination>)

The Millennium Declaration (UN-MD, 2000) however reduced the broad notion of education to a narrowly conceived Millennium Development Goal (MDG) with a target that explicitly focuses only on primary schooling (see Box 2). This lends itself to the timebound, target setting mode of the MDG framework (UN-MDG, 2001); it is easier to derive quantifiable indicators to measure progress against targets of enrolment, retention and achievement, in contrast with literacy or life skills. It also reflects the continuing dominance in international agency thinking of the 'human capital' approach to education's role in human development².

Educational target setting is problematic on many fronts (see Jansen, 2005) but may at least have had the positive outcome of highlighting the unmet educational needs of groups who cannot easily be enrolled in existing models of primary schooling. Problems with reaching such groups with schooling, and the resulting challenge to the agreed targets, underlines the need to think about the suitability of formal schooling for meeting the educational needs of today's diverse and complex societies. We should remember that getting all children to school is not necessarily the only focus (or the right one) for ensuring their right to education (Tomasevski, 2003). Unfortunately, since the MDGs now provide the global framework for development investment, it is this truncated version rather than the entire EFA agenda that attracts priority attention and action.

¹ Collins English Dictionary.

² Econometric analysis, which is increasingly considered to be outdated and methodologically inadequate (see Bennell, 1996), suggests investment in primary schooling yields the highest rates of return, and typically identifies percentage gains in productivity accruing to each additional year spent in primary schooling. International agencies too often overlook the meaninglessness of advocating an extra year of schooling without considering the vast diversity of schooling contexts and therefore what one year might actually mean (see Rose and Dyer, 2008).

Box 2. The EFA and MDG agendas compared

World Declaration on Education For All (1990) – EFA agenda

We hereby collectively commit ourselves to the attainment of the following goals:

- (i) expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children;
- (ii) ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete, free and compulsory primary education of good quality;
- (iii) ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes;
- (iv) achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults;
- (v) eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality;
- (vi) improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

2000 Millennium Summit – MDG agenda

MDG 2

Achieve Universal Primary Education.

MDG 2, Target A

Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

Indicators:

- 2.1 Net enrolment ratio in primary education;
- 2.2 Proportion of pupils starting grade 1 who reach last grade of primary;
- 2.3 Literacy rate of 15-24 year-olds, women and men.

MDG 3, Target A

Eliminate gender disparity in primary and secondary education by 2005 and in all levels of education by 2015.

Sources:

- http://www.unesco.org/education/efa/wef_2000/
- <http://www.un.org/millenniumgoals/>

A further tension arises when the term 'schooling' is used to mean different things. 'Schooling' can mean a generic educational strategy, but is also used to describe an actual practice located in time and space. Paradoxically, 'schooling' practices on the ground have gradually expanded well beyond the iconic structures with walled classrooms and desks, thus broadening the meaning (and usage) of the term 'schooling' and confusing it further with the more general notion of 'education'. Current technological opportunities and eLearning, for example, are expanding the meaning of 'schooling' into even more subtly immaterial domains. The 'School of the Air' in South Australia is a well established example of 'schooling' defining an educational practice in the absence of a traditional 'school': the satellite-assisted software Centra introduced in 2003 generates a virtual classroom over the Internet. While this is not to say that computers will (or can) effectively replace schools, children in cattle and sheep stations scattered across an area of over 900,000 km², now 'enter' these virtual classrooms every morning, communicating with each other and with the teacher via live web cameras (Dolan, 2004).

The practice of home schooling is gaining ground in the USA, and across Europe and Australasia, where it is recognised as a legitimate option within the compulsory education system³. In the United States alone, the parents of an estimated one million children had chosen this option by 1998 (Lines, 1998). Home schooling (also 'home education' and 'home learning') is chosen for a variety of reasons, from religious to pedagogical, from a desire to protect the child from what is perceived as an unsuitable social environment at school, to the conviction that the learning experience at home and with friends will be much richer and more rewarding (van Galen & Pitman, 1991; Thomas, 1998). Whatever the underlying reason, institutional recognition of home schooling and its widespread integration in national education systems makes the notion of 'schooling' much less clear-cut than it has been in the past. The target of ensuring that all children can 'complete a full course of primary schooling' no longer necessarily implies getting them into educational buildings.

Simplifying 'education' to mean 'schooling' can offer practical advantages for policy making, often without causing significant problems. Primary and secondary education is, after all, largely provided through school-based systems. But if there is no further specification of the term, equating education to schooling can generate serious misunderstanding in all those cases around the world in which, for various reasons, exclusion from education is rooted precisely in the school-based system (that is, with 'schooling' being carried out in actual buildings).

In the real world, where communities are targeted by universal education policies, particular groups of children still have great difficulty in taking advantage of education, even when it is available, due to the limitations imposed by the formal and sedentary school-based system. The widespread and serious shortage of infrastructures in the school-based system (particularly in pastoral areas) makes it easier to boost primary enrolment figures by building more schools, than to develop new methods of targeting those groups for whom the school system does not work or is inaccessible. Experience to date of educational provision to nomadic groups has highlighted a range of these well-known issues, which are summarised in Box 3 (see also Dyer, 2006b; Krätli, 2001).

3. There is a flourishing market of popular books on the philosophy and methodologies of home schooling (Rupp, 2000; Dobson, 2002; Holt and Farenga, 2003; Thomas and Pattison, 2008), including a recent volume in the successful 'for Dummies' series (Kaufeld, 2001), also written by groups of home-schooling families (Dowty, 2003). For further information see InfEd (<http://www.infed.org/biblio/home-education.htm>).

Box 3. Challenges in the current system of education provision to nomadic peoples

At point of delivery

Funding: building and maintaining schools in harsh and remote rural areas is costly.

Staffing: difficulties in securing school staffing in harsh and remote rural areas.

Training: difficulties in securing quality teaching in schools in pastoral areas (well trained teachers often go somewhere else or leave at the first opportunity).

Equipment: difficulties in providing adequate teaching and learning materials to remote locations.

Legacy: difficulties in overcoming a legacy of antagonism to nomads' livelihoods, where formal school-based education was allowed to be instrumental to policies of cultural assimilation and forced sedentarisation (therefore posing a threat to pastoral production strategies).

At point of reception

Mobility: although key to the production strategy of the nomadic household, mobility poses a serious challenge to a system heavily reliant on school-based education.

Scattered populations: often an advantage for production but a problem for realising economies of scale in school-based education.

Unpredictable disruptions of service: on top of routine mobility for production, insecurity and environmental events of great magnitude such as floods and prolonged droughts can significantly disrupt the rigid routine of school-based education.

Children's work commitments: children's involvement and responsibilities within the household's economy from an early age competes with the requirements of school calendars and timetables.

Resistance to schooling girls: apart from labour requirements, parents are particularly reluctant to send girls away from the familiar contexts where they can be protected and controlled.

Non-literate parents: the fact that adults/parents often lack basic education means that children cannot receive help at home as far as formal education is concerned.

Liquidity: even relatively small school-related costs are perceived as difficult to meet as pastoral households usually have little liquidity and the economic benefits of schooling are not easily evident.

Despite these many issues, school-based education can sometimes work for children from nomadic households (Sifuna, 2005; MOEK/UNICEF, 2007; Dyer, 2006b). Kenyan statistics for example show increasing enrolment, although it is not known whether these reflect demographic growth or reduced opportunities within the mobile livestock sector leading to household settlement in search of alternatives. However, it is known that nomadic households who are actively engaged in animal production and also willing to take advantage of the national education system usually have only one single option: to join a school.

The reduction of 'education' to 'schooling' in the MDGs is additionally problematic because it plays into the hands of an old institutional inclination, within national education systems, to not recognise forms of education outside of 'schooling' (often paired with a readiness to believe that even poor-quality schooling is 'better than nothing').

This perspective can completely rule out specific minority groups, such as nomads, for when they are perceived as marginal to a national history of modernisation, of which formal education has historically been both an expression and an instrument, they somehow become 'irrelevant' and can remain 'outside' the system. Yet there is evidence that the inclusion of nomadic children in primary education (MDG 2) can be sharply increased by using other alternatives. For example, non-formal education and Open and Distance Learning (ODL) are both capable of bypassing the physical limitations of a school-based service. Such types of provision have shown bursts of nomads' enrolment with no difference between girls and boys and a strong interest among adults (Yates, 2000; UNESCO, 2002; Sanou, 2003; AMANI ECCD, 2005; Carr-Hill and Peart, 2005; Owiny, 2006; AMARC, 2007; Fonseca, 2008).

Pastoralists' resistance is not, in fact, to the idea of formal education; nor is there necessarily any incompatibility between pastoralism and education. On the contrary, the practical challenges faced in providing education to nomads appear to be rooted in the tendency to provide formal education in a solely school-based system. It is thus schooling in its familiar forms, rather than the idea of formal education, that is problematic.

The cost of school-based education: a trade-off with informal education

Children brought up with care, within loving households that are part of well developed social networks, are educated through face-to-face teaching within their immediate social context and through a wide range of experiences. This kind of education is sometimes referred to as 'traditional', but this is not entirely correct. Traditional education sometimes does take place, as a more structured means of socialisation that allows children to participate in traditional institutions, practices and ceremonies, and may at times be quite formal. However, the notion of traditional education alone does not account for the complex and dynamic set of learning experiences that children gain through their prolonged interaction with their mothers and other caregivers, as well as with the wider social and natural environment (Cole, 1992; Super and Harkness, 1997).

In principle, schools can provide a variety of learning experiences similar to those available at home, and perhaps sometimes, better ones. However, school-based learning all too often comes to the nomadic child at the cost of renouncing other very important learning opportunities, particularly as the only option available to many nomads seeking to educate their children is to send them away from home, either to boarding schools or to stay with relatives or acquaintances in settlements. It thus necessitates making a choice – a trade-off – between the educational experience available in school and that available as part of a child's social life at home.

The mix of educational inputs from daily life in the household and the wider environment is covered by the definition of 'informal learning' (Cullen et al., 2000; Tusting, 2003). Over the last fifteen years, a new educational perspective has introduced the concept of 'informal education' to describe the deliberate and programmatic creation of opportunities for informal learning (Smith, 1997; Jeffs and Smith, 1996)⁴ (Box 4). Although not covering a national curriculum, the quality and extent of such education is crucial for the success of an individual as a human being. It certainly qualifies as working towards the 'full development of the human personality' (UDHR, 1948: Art. 26).

Box 4. Informal learning and education

'[Informal education] is the process of fostering learning in life as it is lived. A concern with community and conversation; a focus on people as persons rather than objects, a readiness to educate in different settings'

(Jeffs and Smith, 1996: 7).

4. Scholars working on 'informal education' using this term distance themselves from the child-centred models of 1960s and 1970s informal education philosophies: 'Classroom research, in the early 1980s, demonstrated that even this limited kind of informal learning [child-centred education] had not really gone beyond the rhetorical' (Thomas, 2002).

A significant proportion of informal learning takes place through communication and is termed ‘conversational’ learning (Thomas, 2002). This refers to the knowledge, most of which is implicit, that is passed between people through social conversation. When the conversants’ experience of the world is uneven, as between adults and children, we have conversational learning peaks (Thomas, 1994; Gauvain, 2000). This important way of learning is strictly limited by conventional school settings (often for practical reasons more than pedagogy). As a consequence, however, the pedagogues’ interest is also drawn away from it. In contrast, the growing phenomenon of home schooling is now offering an excellent laboratory for studying these processes.

Another major pathway of informal learning for children is simply always being around more knowledgeable people. This process has been referred to as ‘situated learning’ and ‘legitimate, peripheral participation’ (Lave and Wenger, 1991; Lave, 1993). In different social and learning contexts, from butchering and tailoring, to law, engineering and medicine, the process of how novices acquire expert knowledge and skills has been studied in detail (Lave and Wenger, 1991; Gear et al., 1994). Those who have first-hand experience of nomadic societies will recall the respectful but free movement of children throughout almost every aspect of adult social life, including very formal events.

Since the history of modern education is largely a history of school-based education, interest in children’s learning has often been shaped by this perspective. Understandings of learning in mainstream educational theory are shaped by practical conditions of school teaching, such as teacher-student ratio, issues of discipline, and all the context-specific solutions for capturing economies of scale. But if we set aside a focus on children’s learning in relation to school-based learning contexts, many new possibilities open up⁵. It can be argued, for example, that distance education has suffered from the difficulty of getting away from the school-based model of teaching and learning; and that energy expended on making the model work outside its ‘native’ environment has missed educational opportunities offered by the different context only because these opportunities were invisible to the model.

People who have had bad experiences with school-based education, or who for various reasons have been excluded from it, need simple and straightforward opportunities to gain a sense of ownership of and confidence in mainstream education – just as they have confidence with the many other processes of learning that fill their lives, that is, the processes of informal learning. An effective service providing school-level education to these people (of whom most nomads in Kenya are examples), must therefore provide such opportunities. It is crucial to link mainstream education to the contexts and ongoing processes of informal learning, so that the benefits and knowledge gained through informal learning can be harnessed and woven into mainstream education, rather than lost from the system.

Currently, in order to maximise the expected advantages of education in a school-based system, nomadic children have to curtail informal learning and endure enforced separation from their family. Whether this is cost-effective for the child depends on both the quality and proportion of informal learning opportunities to be given up, and the quality of the educational experience in school. Typically, for children from nomadic households these parameters are exceptionally unfavourable and, despite sincere efforts on the part of the staff, the resultant schooling can all too often represent the poorest quality within a system that is seriously underperforming overall⁶ (Sifuna, 2005; Arero, 2005; Dyer, 2006b)⁷.

Getting the balance right: understanding the ‘trade-off’ between school-based education and pastoral production

For nomads whose direct business is animal production in dryland conditions, using a school-based education service has three serious consequences. Firstly, the household – the production team – has to be split in a way that is functional to school attendance but not to the running of a family enterprise. Secondly, herd management and livestock mobility patterns have to be modified in ways that impact on their productivity and ultimately on the reliability of the

production system. Thirdly, some but not all the children in the family will be enrolled in school, as joining school-based education will prevent those enrolled from being part of the production team (Krätli, 2008). This limits the chances of success of both formal education and animal production, and to make matters worse, when children don't succeed through schooling they often become equally hard to employ in the livestock economy (Arero, 2005).

There is hardly any evidence that educational systems have the capacity to address this trade-off satisfactorily in contexts where the school-based system represents the only educational option. Restraining mobility and/or splitting the household into (less) mobile and completely settled units has both short- and long-term negative economic impacts. It also affects children's upbringing as well as the social mesh of nomadic producers. These obstacles were successfully overcome on a large scale by the boarding school system in Mongolia, at the time of the socialist regime. However, the success of the Mongolian boarding school system involved a state-driven and state-funded structural reorganisation of the entire pastoral production system, including its integration within the nationalised economy and the provision of free support services. In contexts where structural changes on such a scale are neither economically nor politically feasible, policies aimed at enhancing the availability and the quality of school-based education in pastoral areas have not succeeded in providing education for all or even most children in nomadic households. Furthermore, following Mongolia's transition to the global market economy in 1991, and the interruption of the state's 'adjustment' to the pastoral production system, the boarding school system has seen increasing and apparently irreversible deterioration (Steiner-Khamsi and Stolpe, 2005; 2006; Yembuu, 2006).

In contexts where formal education takes place within a 'national' culture that looks down on nomads and their livelihood, the nature of the schooling experience is highly problematic for nomadic children. Schools in remote areas are often too poorly built, staffed and equipped to offer a good quality service. In the past, poor interest in schooling on the part of pastoralists, and poor quality in the service have probably been mutually reinforcing. It is also difficult to know to what extent the official 'problem' of nomads allegedly 'refusing education' has concealed the actual absence of an adequate school-based service.

Substantial improvements in the schooling experience, including tackling the roots of prejudice and misinformation, as well as the quality of the service, could reduce problems of this nature. However, no expansion or improvement of the current school system seems likely to be able to overcome the fundamental incompatibilities between school-based education and drylands animal production systems. School-based education conflicts with functional mobility patterns which, in dryland areas, remain a key strategy for enhancing animal production (see Annex 2: Box 16). In the absence of structural reorganisation of both pastoralism and the school system of the kind introduced in Mongolia during the socialist regime, the successful inclusion of nomads in formal education demands new educational alternatives to traditional schooling.

Reaching those last groups who have remained excluded from standard measures for EFA is bound to be relatively more expensive and more challenging than reaching the rest of the population. The question is whether to do more of the same or to acknowledge the specificity of the situation of nomads and, without compromising on quality or simply looking for a 'soft' fix, try educational alternatives that better match this situation.

5. We cannot of course neglect issues related to the status and formal recognition of schooling in both society and the labour market; but these are not issues of a pedagogical nature and should instead be dealt with in the appropriate forums (legal recognition, accreditable certifications, etc).
6. Average net enrolment ratio in Sub Saharan Africa was estimated at 70% in 2006 (UNESCO, 2008). Amongst those in education in Kenya, only between 10% and 25% reach the 'desirable' level of reading literacy by grade 6 (Onsomu et al., 2005).
7. When given the chance, pastoralists have not failed to voice their concern for a perceived lack of institutional attention to their own educational practices. The report of a 2003 OXFAM workshop on nomadic education notes that 'pastoralist households without a doubt value education, in the widest sense of the word – and much of their child rearing and lifestyle focuses on educating their children' (Oxfam, 2003: 4). At a more recent workshop on the same issue, held by the Save the Children Alliance, one of the key issues was what kind of education to support in light of parents' demand for respect of their own educational work (Fonseca, 2008).

Section 2

Innovative Approaches to the Provision of Education for Nomads



Family learning

The tensions and trade-offs between school and informal learning suggest that the focus on the individual learner – itself an outcome of a colonial legacy of a Westernised model of schooling - is problematic. If this focus shifts to consider the potential of family learning, or ‘family literacy’, many of the issues identified as problematic in the preceding pages become considerably less so. By happy coincidence, the juxtaposition of the EFA adult literacy and early childhood education goals also suggest a focus on family learning is timely.

Family literacy as a term dates from the early 1980s and has evolved to have two key meanings: i) literacy practices within families, i.e. largely domestic uses of literacy within literate families; and ii) literacy programmes that address the family dimension of literacy learning (Hannon, 1999) and combine direct adult basic education for parents with direct early childhood education for children (Hannon, 1999 in Heathcote and Brooks, 2005). It is the latter which concerns us here.

In its early days, family literacy education often adopted a ‘transmission’ model of literacy (school to home) that associated low levels of literacy with a deficit home environment. The shift towards understanding literacy as a set of social practices – and therefore to think of them in the plural, as literacies, rather than the traditional unidimensional literacy - reminds us that literacy acquisition is not merely a simple technical matter of gaining skills. How and where this is done, and how users engage with literacy, are equally important and will shape literacy acquisition (Street, 2001). This perspective of literacy as ‘socially situated’ allows us to see the ‘home’ environment in terms of difference rather than of deficit. It reminds us that learners in different places use and need their literacies for many different purposes. It also raises questions about delivering a ‘standard’ curriculum, which necessarily prioritises someone else’s perspective and knowledge from elsewhere. This in turn suggests that the most successful curricular approach will be to consider how learners will use literacy within the wider family, community and local literate environment, and to make these aspects central to literacy learning at the beginning.

Research on family literacy has focused largely on the need to look at community literacy practices in order to inform – and improve - school practices. This is of course also applicable in the context of nomadic households, but it prioritises attention to children. A more radical interpretation of the notion of ‘family literacy’, in the context of nomadic groups who have been deprived of relevant formal educational opportunities, would be to think of all family members as learners who would engage in socially situated literacy learning activities. They do not necessarily require any involvement with formal schooling. An appropriate model for thinking about this is a ‘literacy second’ approach (Rogers, 2000). Literacy, rather than being the prime focus of a programme (i.e. literacy first), is embedded within a programme that focuses on the development of specific skills, interests or activities.

The idea of the ‘family’ itself in such activities would, in turn, depart from the assumption of a nuclear Western-style family and recognise that in nomadic cultural contexts the ‘family’ is a much broader learning unit. Family literacy learning of this nature should also be able to avoid the trap noted in Western contexts (Smythe and Isserlis, 2002) of reinforcing a gender stereotype that assumes women have the prime responsibility for educating their children; and/or that they operate primarily within a restricted domestic sphere.

As we pointed out earlier, nomads transfer social and livelihood knowledge from one generation to the next by teaching and learning in family units. A family literacy approach appears therefore to offer the promise of a very good fit with existing socio-cultural norms rather than the rupture and resultant trade-off identified earlier that all too often accompanies attempts to use schools.

The resource commitment for such an approach is high in terms of initial start-up costs, since it requires detailed consultation to identify learner interests and needs. This is however a sensible investment. A programme that is relevant and enjoyable has a much better chance of retaining learners – in contrast, it is a waste of scarce resources to provide a programme that does not retain learners. Distance and open learning approaches of the nature proposed in the next section offer excellent possibilities for programme delivery.



Open and Distance Learning as a way forward

As the 2015 MDG target for primary education draws closer and hope in its being universally achieved fades, there has been increased policy interest in ODL in general (EODLLC, 1999; Murphy et al., 2002; UNESCO, 2002; UNESCO, 2006), and for nomadic groups in particular (Pennells and Ezeomah, 2000; Carr-Hill and Peart, 2005). This is not to suggest that schooling is intrinsically problematic, or that there is an intrinsic quality attached to ODL. Indeed, past experience reveals that ODL programmes have often been used as a cheap fix for inadequate school-based education, rather than as educational alternatives for specific groups of people who are not in a position to take full advantage of the school-based system without significantly undermining their livelihood in other ways. An ODL approach does however offer ways forward in conditions that may be seen as even more challenging than those of nomads, such as cases of emergency and reconstruction, where people have undergone severe shock, families are often broken down, have few or no resources and have to deal with restrictions in freedom and rights (Pennells and Ezeomah, 2000; UNESCO, 2006).

In relation to education provision for nomadic people, an ODL approach is justified on pragmatic grounds, as traditional full-time contact education provision is at odds with the living conditions of the prospective students. The recent wave of interest in ODL triggered the 'All-Africa Ministers' Conference on Open Learning and Distance Education', in South Africa in 2004⁸ and – with a specific focus on nomadic peoples – the Forum on Flexible Education, in Kenya in 2006; and a similar forum for South Asia in New Delhi in 2008 (Dyer, 2009). This interest recognises that mainstreaming an ODL approach (MOEK/UNICEF, 2006: 69) would allow for necessary adjustments in the structure of national education systems to accommodate and fully integrate those people, such as nomadic groups, who are left out by the current system. This has been successfully done with formal distance education in Australia, for example, and ODL is often the recommended approach in case of emergencies and with refugees (UNESCO, 2006). In comparison, the use of ODL with nomads can rely on strong and healthy social organisations and family networks, and work with reasonably happy and well-nurtured children.

Education within an ODL approach has the potential for very flexible service provision, and this flexibility must be retained when ODL is used for providing a formal education programme. It is important to retain this capacity to have children and adults learning together, both at the camp, and in the course of their daily activities. Access to primary education need not be restricted by age. Furthermore, ODL has the capacity to address the current trade-off between formal education and productivity, or as most lucidly put by a Boran elder during a recent discussion on educational alternatives, of 'having to choose between wealth and knowledge, between having a prosperous herd but remaining ignorant, and being educated but poor'⁹. The very same dilemma was also captured by the Kenya SACMEQ¹⁰ II report (Onsomu et al., 2005)¹¹. Using ODL, uniformity and quality control can remain unaffected when providing education in harsh and remote locations or with highly scattered learners; and continuity of study can remain unaffected by movement.

8. The Conference proceedings can be found at <http://www.africaodl.org/conference/odl.htm>.

9. Jaldesa Alkano Ali, interviewed at the 'Ethiopian Pastoralists Peace Gathering', organised by the Oromia Pastoralists Association in conjunction with DFID Democracy, Growth and Peace for Pastoralists project, 16-19 January 2009.

10. Southern and Eastern Africa Consortium for Monitoring Educational Quality; the reports can be found at <http://www.sacmeq.org/reports.htm>

11. 'Issues of concern include the lack of flexibility in school timetables, which does not allow time for herding. Consequently, parents have often opted to make their children take care of livestock rather than send them to school. Other issues relate to the relevance of the curriculum to the pastoralist way of life. Any intervention that will have a noticeable impact in this province should be guided by studies specifically focused on these issues' (Onsomu et al., 2005: 157).

Open Learning: a premise about concepts and language

ODL is an umbrella definition introduced in the 1990s to describe both distance education and open learning work. A widely accepted definition of distance education is ‘an educational process in which a significant proportion of the teaching is conducted by someone removed in space and/or time from the learner’ (Perraton, 1982: 4). Open learning has been defined as ‘an organised educational activity, based on the use of teaching materials, in which constraints on study are minimised either in terms of access or of time and place, pace, methods of study, or any combination of these’ (Perraton, 1997, quoted in Perraton 2007: 12). In this definition, open learning does not imply openness to entry requirements and does not exclude formal education.

ODL is but one of many definitions that over the years have been used to categorise a growing family of approaches and perspectives amongst a range of educational alternatives. Different educational approaches have often been presented as polar opposites within a ‘modes of delivery’ framework, using terms such as ‘formal/non-formal’ and ‘distance/contact’ learning.

In other cases, terms have been used interchangeably, for example, ‘distance education’ and ‘educational-technology’. But the use of polar opposites can easily miss the complexity on the ground. Thus the current trend is to represent educational alternatives within a continuum, as most actual teaching and learning experiences transverse the neat boundaries delineated by these categories (Butcher, 2000). This new way of thinking removes the limitations of seeing ODL as merely a different mode of delivery, for example, as an ‘informal’ alternative to formal schooling. As a result, it allows ODL to emerge as simply the most general, pragmatic and all-encompassing approach to education, within which all dimensions of formal and non-formal education can be integrated. It fits ideally within the overarching approach of any ministry of education – captured in the definition of Open Learning quoted above – of seeking to ‘remove all unnecessary barriers and restrictions to learning’. In this paper, therefore, mainstreaming an ODL approach does not exclude contact or the use of a formal curriculum, but places a strong emphasis on the current and tested possibilities of providing good quality education alongside face-to-face contact and a rigid integration of curriculum and school calendar.

ODL cannot be viewed as a general educational ‘magic bullet’. However, in contexts in which nomadic families remain out of formal education because of ‘unnecessary barriers’ associated with institution-based delivery, a national education system structured on a ODL approach offers additional avenues to allow for their inclusion (Box 5). The situation of nomadic and itinerant groups (together with gender-biased educational contexts and conflict ridden regions) is a clear case where ODL represents the most effective approach (Yates, 2000; UNESCO, 2002; Carr-Hill and Peart, 2005; AMARC, 2007).

Box 5. Shifting our perspective

‘Achieving success in places least used to seeing it; reaching the most marginalized; providing access to the most historically neglected will require new and flexible learning models, new applications of technology, new learning networks, and much more. It will require us to subtly shift our perspective on the delivery of learning from one of getting kids to school to one of getting school to kids - where they live, how they learn, what they need to thrive. Open and distance learning can and must play a central role in this unfolding effort’

(Carol Bellamy, president and CEO, World Learning, PCF5 Conference: Access to learning in Development, 14 July 2008).

Previous experience (e.g. Jenkins, 1989; Yates and Bradley, 2000; Butcher, 2000; Creed and Perraton, 2001; Perraton, 2007) however suggests several areas where caution is advisable. Awareness of the advantages of an ODL approach does not necessarily lead to a well designed programme and successful implementation (Tahir and Muhammad, 1998; Pennells and Ezeomah, 2000). In education, as in other dimensions of development, over-optimism about technology as the solution to all the challenges comes at a cost. The history of distance education has had a strong drive, from industry, to focus on state-of-the-art technological resources. As a result, cutting-edge research focuses on the educational potential of sophisticated technologies that serve the upper end of the market but are by and large irrelevant to the millions of out-of-school poor. Radio was at the centre of attention in the 1970s and 1980s, when poor people in most rural areas in Sub-Saharan Africa had little access to it. Interactive Radio Instruction programmes bypassed this issue, as radios were provided to schools and operated by the teachers. Paradoxically, now that radios have become popular even in very remote areas, the attention of distance education research and policies is on multimedia, computers and the Internet. Poor and remote rural areas typically gain access to new technologies with a significant delay, even when – as for information and communication technology (ICT) – they are the ones with the greatest need. When adequate technologies finally become available to them, global interest in ICT has already moved onto a newer level. It is thus crucial to remember that, for successful Distance Learning, technology should be kept at a minimum, and should be simple, easily affordable and scalable. After all, the quality of ODL will be measured by its educational effectiveness and economic sustainability, not by its levels of technology. Just like the more familiar technology of walled classrooms, ICT can also become an ‘unnecessary barrier’ to learning if treated as a goal in its own right.

A key driver for distance education policies has been the promise of reducing per-student costs through economies of scale (Perraton and Lentell, 2004), but in most cases, the actual costs of distance education programmes have been equal to or higher per capita than those of conventional education and the anticipated economies of scale have not been achieved (Perraton, 2007). Start-up costs are also high. Programmes need high quality printed materials that require continuous updating, and effective distance education frequently also requires a significant degree of face-to-face contact with teachers. Few programmes have actually reached very large numbers of learners (these include the Indira Gandhi University in India, the Open University in the UK, and Radio Accion Cultural Popular in Colombia), and most remained pilots that were not scaled up to national level. Economies of scale can be achieved in broadcasting, providing that equipment and learning materials at the receiving end are available in proportion to the programme’s scale. Maintenance costs do exist but are rarely incorporated into financial planning (Yates and Bradley, 2000; Perraton, 2007). Besides the many projects exploring the educational uses of state-of-the-art ICT – from multi-media packages and eLearning, to low-cost computers and the Internet – there is a renewed interest in the radio as the simplest and cheapest technology successfully used for education at a distance (Berman, 2008).

Box 6. Family primary education by radio

‘People in Colombia on other mountains are often even more sparse on the ground than they are here, although not so sparse as in Australia, with its outback radio schools. Landowners have taken most of the best land in the valleys, and forced the ‘campesinos’ to snatch a precarious foothold and a precarious living on the marginal slopes above. In many districts there are no villages nor ordinary schools within scores of miles of each other. In some places the nearest neighbours may be a day’s walk. Meeting together is difficult and, when the rains have turned the paths into mud, impossible. Roads are bad. In the western half of a country with over 20,000,000 people the ubiquitous radio is the only regular means of communication with the world beyond the homestead. The radio is the obvious teaching instrument, and the family the obvious educational unit’

(on Radio Accion Cultural Popular, Young, 1990: 186).

The fact that Distance Learning programmes are rarely less expensive than conventional schooling is an obstacle only when ODL is chosen as a cheap shortcut to mass education. Education provision to nomadic peoples is a very different scenario, driven by practical and educational rather than economic rationales: the switch to an ODL system is in order to include learners who are not reachable with school-based education. For these learners too, therefore, it is reasonable to anticipate per-student costs that are similar to those in conventional schooling. Indeed, it is reasonable to expect somewhat higher costs associated with reaching the last 10-20 percent of learners. This incremental cost is independent from the strategy adopted. Making quality school-based education available to all the children in nomadic groups, although not solving the problem of those who cannot take advantage of schools, would also have a significant cost, most likely higher than the average per-student cost so far. It is against such a cost that one has to measure the cost-effectiveness of an alternative ODL strategy: 'A working hypothesis might be that open and distance learning has to face severe difficulties if it is to match the best of conventional education but, if well-designed, may often match the best of what is available' (Perraton, 2007: 205).

Primary level distance education

There is very limited experience of distance education at primary level – with the exception of Australia, where a literate environment is available and the School of the Air, using two-way radios and more recently mobile phones and the Internet, has a long and successful tradition. One of the few radio-based literacy programmes that did engage with children, Accion Cultural Popular Colombia (ACPO) was very successful (Young, 1990). Perhaps one of the reasons was that the ACPO targeted both children and parents at the same time. Successful experiments with adaptations of the Interactive Radio Instruction for out-of-school young children were carried out in the Dominican Republic and Zambia with only minimum support from facilitators (Helwig et al., 1999; Clayton, 2006).

Formal education and curriculum relevance

The status associated with formal education, and to some extent the qualifications it offers, is a key factor in motivating parents and pastoral communities to invest in the education of their children. To maximise the returns of the state's and the parents' investment, an ODL system should work with the formal education curriculum. However within this context too, considerable attention needs to be paid to the question of curricular relevance. An appropriate and accessible curriculum plays a major role in retaining learners; and it is important also in relation to securing for all children the right to quality education. The need to guarantee nomadic children formal education in the same subject areas as the other school children in the country has to be matched with a concern for relevance. Four dimensions of the curriculum – going well beyond mere subject content – need be considered (Box 7).

Box 7. Four dimensions of curricula

Subject Content

The acquisition of foundation skills and information (e.g. communication skills, literacy, numeracy, competency in national/international languages, critical and analytical skills, foundational understanding of natural sciences, history, geography, etc. including basic general information).

Status

The acquisition of widely respected formal recognition leading to a higher cycle of formal education or to work of a more rewarding kind than would have been possible without the cycle of education in question.

Socialisation

The acquisition of essential social skills necessary to live in a national society (e.g. an understanding and internalising of the principles of democracy, respect for cultural differences, respect for state laws, etc.).

Localisation

The acquisition of skills (including social skills) and information that are rooted in a specific section of the society, are functional to living in a particular context, and help define people's particular identity and status (e.g. information about zero grazing, coffee farming and irrigation schemes or about cattle's favoured diet on a dry season range; the competence in using a handkerchief or a set of cutlery or the competence in making tea or performing complex ritualised greetings).

Concerns about the adequacy of 'national curricula' in increasingly heterogeneous societies have been at the centre of huge debates following the opening up of national borders within the European Union, as school systems faced an increasing diversity of children within their classrooms, with different cultural and/or social backgrounds (Coulby, 2000; Ajebo et al, 2007)¹⁴. The question of relevance to learners has become central. Experience so far shows that making national curricula relevant to groups other than those they were historically designed for (and by) is not achieved simply by adding extra topics (from the same centralised perspective) to the curricula. Relevance in a complex and highly diverse society cannot be achieved by addition: it requires a change of approach to the whole notion of a 'national' curriculum.

One interesting example is Finland. During the 1990s, the Finnish education system was decentralised. The Ministry of Education retained control of a barebones version of the national curricula, the National Core Curricula, on the basis of which local municipalities were given powers to draw up their own curricula in collaboration with schools, families and community representatives (Rønning and Wiborg, 2009). 'Core curricula' are complete enough to guarantee the national requirements and quality standards (in terms of subject content, socialisation and status), yet not complete enough to be put into practice without further elaboration. They are designed so that they can only effectively be completed at the local level; made current and locally relevant through an on-going process of collaboration with the end users.

With regard to pastoralists, these issues are no less complex – the question of relevance is highly problematic. A curriculum becomes ‘relevant’ to pastoralist children not by adding ‘relevant’ topics like ‘animal husbandry’ (from an urban/agricultural perspective and possibly the last topic pastoralists might need to learn at school) but by tackling the foundation subjects (language, literacy, maths, sciences, etc.) from the perspective of pastoralists’ daily reality and pre-existing knowledge, as constructed by pastoralists themselves. Relevance cannot be achieved at central level and cannot be permanent.

It is crucial to build capacity within all the institutions concerned with pastoralism and education (at all levels), to go well beyond the present crash-courses on ‘nomads’ lifestyle¹⁵ and to understand at least the fundamentals of pastoral production systems. The institutional understanding of pastoralism needs to go beyond the pastoralism-as-a-lifestyle perspective and come to terms with its reality as a productive force.

Box 8 provides a checklist for a sound school-level ODL approach.

Box 8. Checklist for a sound school-level ODL approach

Legal framework

Clear and full integration of ODL teachers and learners in the national education system, with an equal status to the school-based system.

Teachers

Face-to-face contact is key and should be maximised. ODL teachers should be fully recognised, on an equal level with school teachers, offered sound opportunities for professional development and sharing of good practices, involved in all aspects of programme design, and involved in the work of the ODL radio.

Finance

A clear and long term financial plan and adequate resourcing (ODL should not be the usual education on the cheap).

Learning materials

Learning materials are a crucial component. They must be explicit, comprehensive and quality assured, and be designed and developed in collaboration with all groups of users (teachers, learners, parents, radio professionals).

Technology at source

Communication technology at the delivery end should be decentralised and participatory, ideally based on enhancing existing community radio stations. Air-time should be unrestricted.

Technology at reception

Communication technology at the receiving end should be simple, inexpensive, robust, free to power and easy to repair. The devices must be capable of record and play-back functions and of exchanging these recordings with each another.

Curriculum

Based on the formal national curriculum, ‘de-localised’ and ‘granulated’ into individual ODL modules (15-minute radio programme + 1 page of printed support), to be re-localised for the various user groups in close collaboration with the end-users (children, communities and teachers).

Motivators

There should be a system of grants for both academic and non academic achievement. Everybody, at all times, must feel that she/he has got a chance to excel and be recognised for having done so.

14. Another example of this is the UK National Curriculum ‘Respect For All’ project: http://www.qca.org.uk/qca_6753.aspx.

15. See sections on Curriculum and Teacher training in Annex 2.

Blended learning: the role of community radio and ‘edutainment’

New digital technologies have changed the face of radio broadcasting, by improving production efficiency and expanding the type and range of information and content available to listeners (Pringle and Subba 2007: 19):

In the digital age, radio has thankfully reinvented itself as a simple and effective tool - for learning, entertainment and interaction. It stresses the “C:” (communication) in the ICT array, and needs to be developed, explored and exploited further in all learning engagements (from ‘Points for future action’, *Appropriate Learning Technologies: Community Radio* session, the Fifth Pan-Commonwealth Forum on Open Learning, July 2008, <http://www.wikieducator.org/PCF5>).

Box 9. Building education on communication

‘“Know thy audience!” Effective radio programmes, i.e. those that attract and affect listeners in prescribed ways, are generally based on extensive target audience research. With an awareness of a particular audience’s knowledge, attitudes, behaviours, and listening habits, program designers can develop programs that convey information in comprehensible, compelling, and culturally appropriate ways’

(Mayo, 1999: 2).

‘Community radio’ (CR) has also opened up opportunities for innovative forms of radio education (AMARC, 2007; Pringle and Subba, 2007): the Nepalese experience with community radio, where the first independent broadcaster went on air in 1997, demonstrates that this medium can be a cost effective, inclusive and highly accessible development tool. Community radio programmes are typically offered in local languages, and can achieve very high levels of relevance and participation by drawing on the potential of CRs to be integrated with local realities and social networks; their physical and cultural proximity to the livelihoods of the prospective learners; their natural openness to communication and exchange with their audiences, for example, through letters or phone calls to the station and on-air questions and answers, or through visits and on-air discussions by members of the community.

Box 10. Community radio

Two tenets of community radio are representation and participation. Unlike privately owned stations, a community radio must represent the community [it] serves in terms of ownership, management and staffing, and content... [Who] makes decisions about programming and who creates it goes a long way in influencing what types of content are created and prioritized and from what perspective. Content will never be representative without reasonable equity in ownership, management and staffing

(Pringle and Subba 2007: 29).

A comprehensive UNESCO review of the Nepalese experience (Pringle and Subba, 2007) identifies: excellent practices in programming and community participation; resource centres and support organizations with high capacity; and an active national association of community stations (*ibid.*: 4). Networking among radio stations is found to include content sharing, programme distribution, national and sub-national training workshops and information exchange (*ibid.*: 5) and there is evidence of lively ‘public interest’ radio.

However, there are broader issues, following from ongoing processes of deregulation and unrestricted exposure of radio services to market forces, which may need careful negotiation if they are not to stifle the creative potential of community radio. In Kenya in 1999, for example, large-scale radio education programmes suffered from the privatisation of airtime, which suddenly made them unsustainably expensive (Murphy et al., 2002). Nepalese

experience demonstrated that despite the positive aspects noted above, the current lack of regulation of the FM sector ‘abandons broadcasters to the “survival of the fittest” in the market, which, among other deficiencies, will not provide for public rights to information and expression or the country’s need to ensure inclusion and development’ (Pringle and Subba 2007: 15). An area of major concern is ‘elite capture’ of station ownership and programming decision-making; and a journalist - rather than community - driven orientation that adversely affects community representation in relation to content and whose voices are heard. Competition among broadcasters is found to have a negative impact on programming, with an increased volume of syndicated content that lacks local contextual relevance or immediacy. Re-iterating the basic principles of community radio (Box 11) and the need to assert them and regulate the sector, the review also notes the crucial importance of developing a coherent policy around language and its relationship to empowerment of diverse linguistic communities and coherence of the nation state. The language of broadcast will not only determine the target audience, but will also influence the programme content and representation of the listener’s views¹⁶.

Entertainment education

Media messages can be designed and produced with the specific purposes of both entertainment and education. Using media messages in this way can increase knowledge of and interest in an issue of educational relevance, or influence the audience’s attitude towards a subject, either by introducing alternative points of view, or working at a more subconscious level by introducing new models of social norms and behavioural patterns; in other words, ‘informal learning’ through the vehicle of entertainment. The many possible uses of media in this way are gathered under the definition of ‘entertainment-education’ (Nariman, 1993; Singhal et al., 2004). The analysts of entertainment-education (E-E) emphasise its potential for behavioural and social change, and identify two main avenues through which it operates. First, E-E can influence individuals’ sensitivity and behaviour towards a socially desirable end. Second, E-E can impact at a systemic level, influencing public and policy



initiatives in a socially desirable direction. But E-E is interesting to us even beyond this common use and these particular goals. Fundamentally, E-E is a communication strategy. E-E programmes have gone a long way in developing systems for gaining sound research-based information about the characteristics, needs, and preferences of a target audience (Usdin, 2004). Most distance education uses radio and television as a replacement for the teacher, adapting messages that are rooted in a school-based understanding of learning. On the other hand, E-E explores the possibility of educational strategies that, being rooted in the process of communication and relying on all its dimensions, are ‘native’ to the communication media and can exploit a whole different set of resources.

16. The political dimension of language can remain relevant also in countries where there is only one dominant language. An evaluation of the Somali Distance Education Literacy Programme (SOMDEL), found that ‘the audience in Hargeisa complained about the “Mogadishu” dialect being aired rather than their local dialect and they suggested the spelling of certain words in the textbooks be corrected’ (Fentiman, 2003, in Dennis and Fentiman, 2007: 17). A description of SOMDEL is given below in Annex 2.

Section 3

Conclusion

Towards the implementation of these ideas (shared issues and international networking)

This review has demonstrated multiple strands of complexity in relation to planning for the educational inclusion of nomadic groups. It has noted the encouraging determination in some countries to act now to address this issue. The review has identified risks of continuing with the current strategy – the school-based system – that can at best only be partially effective, and has honed in on some very promising approaches for future investments to ensure that Education For All pledges do actually include nomadic groups. These alternative approaches centre on a loose notion of ‘open and distance learning’ (ODL), intended as an overarching framework for a national education system, capable of integrating the whole spectrum of educational options, including conventional schooling. Within this framework, pastoralists – and more generally those children whose nomadic livelihood makes joining the conventional schools system particularly problematic – could be more effectively reached through a combination of high-quality and locally relevant broadcast programmes, face-to-face teaching, and printed materials based on a fully recognised core national curriculum, focusing on the children but also targeting the household as a whole.

In any one country, nomads are a minority group. Like any other state institution, ministries of education seek programmes capable of reaching the largest number of people at the lowest cost. Nationally, a programme capable of reaching pastoralists would typically have high costs and a relatively small target group. However, this would not be the case if strategic resources could be shared across more than one country. In Africa for example, pastoralists taken as a whole add up to a target population the size of a large country. Other scattered and mobile populations increase this size even further. Cooperation at the international level could achieve economies of scale whilst targeting minorities with atypical but similar requirements. In South Asia, the need to work at least regionally was a key recommendation of the recent Forum on Flexible Education for Nomadic/Migrant Groups (Dyer, 2009). Awareness of regional similarities in the education challenges across the Arctic (shared between eight countries) recently led to an EFA in the Arctic Report (Rønning and Wiborg, 2008¹⁷). Several African countries with large nomadic pastoral communities have already advocated the creation of an international framework, at least at a regional level, with the aim of co-ordinating and harnessing national resources in the direction of standardisation and economy of scale (Ezeomah, 1997: 99; 73). However, it is important to ensure that flexibility and relevance are not sacrificed for cost-saving.

In conclusion, there is growing awareness that the challenges faced in providing education to nomadic populations cannot be dealt with as part of the standard activities of ministries of education. Including nomads in Education For All requires dedicated frameworks with a specific focus and a specific set of competencies. In the famous definition of military theorist Carl von Clausewitz ‘tactics is the art of using troops in battle; strategy is the art of using battles to win the war’. Sparse tactics, such as new programmes tacked onto the traditional school-based system whilst leaving the system untouched, are simply not enough. A shift from tactics to strategy is required: not an extension of the current system (which in this case is part of the problem) but a new and responsive national strategy for education. Educational inclusion is only achieved when it genuinely includes everyone. Therefore educational reforms must address the whole, not just the ‘missing part’.

17. Education provision in the Arctic faces challenges similar to those faced in the drylands: extreme environmental conditions, sparse population (many of whom pastoralists) and a legacy of strong urban-rural and centre-periphery dynamics related to the cultural, economic and political powers of the governments that control it. Although simply a geographical region shared across eight countries, since 1996 the Arctic has been given an institutional framework of inter-governmental co-operation (the Arctic Council) responsible for, amongst other things, producing the Arctic Human Development Report (AHDR, 2004).

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Annex 1:

South Asian experience
of nomadic education

Annex 1: South Asian experience of nomadic education

Key points

- In South Asia there are significant numbers (millions) of nomadic people but they have never been accurately enumerated
- Nomadic groups have inconsistent visibility in policy and this is linked with inconsistent approaches to including them in education and other development programmes
- Typically it is non-government providers who are progressing the cause of education for nomads most consistently - but the scale of their effort is too small to allow policy pledges to be met

In South Asia, there has been steady progress towards meeting the MDG goals among sedentary populations (UNESCO, 2008). In comparison with Africa, however, the pace of policy awareness and change in relation to addressing the education needs of nomadic groups is slower (Dyer, 2006). Nomadic populations in this region are significant and include not only transhumant pastoralists but also entertainers, hunter-food gatherers, river gypsies and iron smiths – to give but a few examples¹⁸.

In India, some estimates suggest that nomadic and migrant populations number at least 60 million (between 7-10% of the population (National Convention, 2005)). Morton (2008: 2-3) notes that in Afghanistan, pastoralists alone are estimated to be 6% of the total population - 1.5 million people. Estimates for Pakistan are, as he notes (ibid), 'almost impossible to trace' but there are significant concentrations of pastoralists (millions) in Pakistan's Balochistan and North West Frontier Province. Elsewhere, such as in Bangladesh (van Beurden, 2007) and Sri Lanka, gypsies are a significant element of the social landscape although exact counts are impossible to come by (see Box 11).

Box 11: How many are there? The counting dilemma

The Bede in Bangladesh estimate their total population to be 1.2 million, while official estimates put their number at around half a million, as the government does not recognise those without fixed addresses and many Bede live on boats that ply the country's rivers.

Source: van Beurden (2007: 16)

Nomadic groups belong to both Muslim and Hindu faiths; while some have a distinctive tribal ethnicity, such as the Muslim Baloch and Pathans in Pakistan, others are of the same ethnic groups as sedentary populations, but belong to particular Hindu castes whose traditional occupation is pastoralism (Köller-Rollefson, 1994) - or knife-sharpening, or snake charming, for example.

Patterns of migration vary from group to group, each group adopting a pattern that suits its particular occupation. While migration is often within the territory of a single state, trans nation-state border movement of nomadic groups also takes place, across the highly politically charged terrain of the fiercely contested Indo-Pak border, and the porous Afghanistan-Pakistan border; and on the river delta between India and Bangladesh. In the mountainous regions, political tensions and rugged geo-physical conditions present very considerable challenges to the provision and access of services. Although civil strife in Afghanistan has formally ended, many nomads remain internally displaced within Afghanistan or are refugees in Pakistan. In both places, tensions between nomadic and sedentary groups also reflect longstanding inter-ethnic rivalries and suspicions.

18. This annex focuses specifically on nomadic groups while noting that seasonal migration of labourers is growing in responses to poverty, ecological degradation, the casualisation of labour, and increasing urbanisation. Income generation opportunities for migrants in the region include cultivation and plantations, brick-kilns, quarries, construction sites and fish processing; and in the urban areas, in informal manufacturing construction, services, tourism or transport sectors; casual labour, head loading, rickshaw pulling and hawking (Chatterjee, 2006).

There is inconsistent policy visibility of nomadic populations in regional education and livelihood policy arenas, as this annex will demonstrate. There are also pockets of interesting and innovative practice in the region but typically, it is non-government providers who are advancing the cause of education for nomads most consistently. They do so against a continuing background of budgetary constraints and instability, and subsequent risks around sustainability. Their work is very valuable but it cannot address the large actual numbers of nomadic people who remain beyond the regional policy gaze, despite pledges to provide universal primary education and Education For All.

Nomads' policy visibility: inconsistent exclusion in the South Asia region

This section suggests that in South Asia, official categorisations of 'disadvantage' may play a role in the slow progress of nomads' inclusion. Complex identity politics influence how people are categorised and this plays a part in education policy strategies that tend to categorise 'who' the learners are, rather than addressing the policy 'problem' itself – such as how education relates to learner mobility and livelihood needs.

In Afghanistan, a key post-conflict objective is to assure universal educational access in order to achieve the MDG and EFA goals. This intention translates into a firm policy focus on increasing the proportion of girls' enrolment in primary education to address the wide gender disparities resulting from the convictions of the previous political regime.

Nomads' rights to education enjoy a very high profile as they are specified in the 2004 national Constitution (IRAME 2008). Despite this, follow up in the education policy documents that would make this a reality are inconsistent. Where nomads do find mention (e.g. IRAME 2008), strategies to identify their educational needs, or to think about forms of education provision other than boarding facilities, appear to be largely absent. In relation to access, for example, the fact that many out of school girl children are inevitably nomadic girls suggests that nomads' needs are not factored into consideration of how all girls in Afghanistan are to be offered equality of educational opportunity.

Box 12: Nomads' contribution to the Afghan economy

Nomads in tents may look like they belong in another age, but in reality they are highly specialized producers who make a major contribution to Afghanistan's balance of trade. Their goods (along with cotton and fruit) have always been Afghanistan's most valued agricultural exports. Thus aid to pastoral nomads should not be restricted to projects only at the community level but include those that help nomads in general market their animals or increase export opportunities

(Barfield 2004: 3).

There is nomadic invisibility across development policy, and not in the education sector alone. In an independent review of the extensive National Solidarity Programme (NSP)¹⁹, Barfield (2004) argued that an opportunity to address the needs of nomadic people was missed and suggested it be 'revised to deal specifically with the nomad population'. This review made 11 project suggestions grouped around preserving legal rights; restoring the pastoral economy; providing services (and it noted that for education what was needed was innovative instruction not dependent on school buildings); and preserving the unique cultural heritage. It argued that institutions of community consultation need to be able to cope with people who have 'multiple residences and different sets of neighbours at different times of year' (Barfield 2004: iii). From this perspective, the community development model proposed by the NSP discriminated against nomads: although summer camp is a time of relative stability where groups share a pasture area, they are not socially or politically one community. In this context, a notion of community that would facilitate development should be geographical rather than social.

Each ‘community’ development committee should have representation from members of the different social communities who comprise one geographical community, jointly using the same physical resource – such as a watershed area. Despite this specific detail and focus, and its reminder of nomads’ substantial ecological contribution to sustainability, the evaluation left the programme unchanged (Barfield, personal communication May 2009).

In Pakistan, the net primary school enrolment rate is merely 56%²⁰. There is a strong focus on governance reforms to ensure that citizens are provided with fair, equitable and effective access to their rights. Following the earthquake in October 2005, nomadic groups came to camps to receive humanitarian aid along with other earthquake affected communities. But these humanitarian initiatives have not been sustained - as is so often the case, humanitarian intervention as a short term strategy has not flowed into longer term development planning.

In Pakistan, just as in Afghanistan, there is in fact sufficient information about nomads’ development needs to inform preliminary education policy strategies; yet they remain excluded. DFID’s extensive work in rural areas did not, for example, seem to succeed in alerting the programme to the educational needs of nomadic groups (personal communication, DFID representative June 2009). Yet in 2001, the World Bank suggested that pastoralists should continue to work in their traditional occupation (in this case mountain herding), with particular attention to ‘pastoral empowerment, mobility and flexibility in access to resources and drought preparedness, including markets and appropriate financial instruments (insurance, savings) to mitigate drought and other risks’ (World Bank, 2001).

In the cases of both Afghanistan and Pakistan, where school enrolment of general populations remains very low, policy attention is narrowly focused on conventional primary schooling as the vehicle to deliver the MDG goals. In this respect the ‘targeting’ of the MDG (Jansen 2005) is somewhat counter-productive. The prioritisation of formal schooling appears to constrain, rather than broaden the view of how educational inclusion of all children could work, which in turn requires the exploration of alternative models for specific population groups such as nomads.

India has a vast and highly diverse population of pastoral nomadic groups in both semi-arid zones (Sharma et al., 2003) and in the mountain pastures of the Himalayas (Rao, 2006). As enrolment in formal schooling has increased, being ‘uneducated’ in India implies low social standing (Jeffery et al. 2008). Formal education is often positively associated (even by nomadic groups themselves (Dyer, 2008)) with increased social capital – yet it remains very difficult for migrating groups to take advantage of it.

Another issue in relation to nomads’ social standing is an enduring colonial legacy. The British officially notified particular nomadic tribes as criminals. Although the post-Independence state has had these tribes de-notified, the perception of a threat from those who move to those who are sedentary continues. The question of official categorisation, however, remains important, as positive state discrimination for development is offered to groups who are categorised as a Scheduled Tribe²¹. This includes free provision of state-supported schooling and reserved places in state employment. Nomadic groups, seeking a higher awareness of their development needs, have made political moves to represent themselves as candidates for inclusion in this category. This strategy has been rebuffed by the state which excludes or makes invisible those people who do not fit the required criteria (Singal 2005).

By a similar process in Bangladesh, the nomadic Bede (see below) are not counted as an ethnic group and therefore excluded from programmes that positively discriminate for those who do enjoy this entitlement.

19. <http://www.nspafghanistan.org/>

20. (<http://www.dfid.gov.uk/Where-we-work/Asia-South/Pakistan/Major-Challenges/#gender>).

21. Included under a Constitutional Schedule that enjoins the state to provide special protection to nominated groups.

Innovative provision of education to nomadic groups: four cases

Despite a generally inconsistent policy focus, there are some instructive examples of innovative provision of education to nomadic groups, and particularly of mobile schooling. Again, however, there is less innovation in the South Asia region than, for example, in Africa.

1. Moving schools

The mobile boat school approach developed by Grambangla Unnayan Committee, an NGO in Bangladesh, to serve the Bede community is an example of flexibility in respect of both mode and content of education provision. Importantly, it has its roots in Participatory Action Research (PAR) which was used to initiate a needs-based development programme, in contrast with earlier research on Bedes that had documented but not addressed their plight (Maksud and Rasul 2006).

The Bede are a nomadic community of water gypsies in Bangladesh who comprise some 500,000 people, 90% of whom are highly mobile. Traditionally snake charmers and performers, as well as healers, they move in some 10,000 nomadic groups around the year, in Bangladesh and also across into India, and gather in about 65 areas in Bangladesh for two months. About 98 percent of them live below the poverty line; more than 95 percent are not literate; and over 90 percent are disenfranchised, lacking either the tax registration or school leaving certificate required to be eligible to vote. They are socially excluded and stigmatised, and yet unrecognised by the government of Bangladesh as a specific ethnic group. Therefore they receive no positive discrimination to ameliorate their situation (Maksud and Rasul, 2006).

The PAR process was able to identify a range of lifelong, gender differentiated learning needs among the Bede, and aimed in the first instance to set up mobile boat schools. There are now 11 boats, each managed by a PAR group serving as a school committee. External animators (3) are phoned up once a boat arrives at an agreed point and each spends 5 days per month living on the boat and working with teachers and children. The boat schools use government curricular materials to promote their access to the formal school curriculum, and the model envisages children spending two months in a government school during the time of community convergence. This allows Bede children the option and choice of whether or not to take up the traditional occupation.

Maksud and Rasul (2006) report that this model has been very successful in getting the Bede to think about self-determination and has created a change in self-perception – it is now possible to be ‘an educated Bede’. The project has also increased their policy visibility: the Bede’s special needs are now mentioned in the Bangladesh Poverty Reduction Strategy Paper (PRSP). It has also provided a model which donor and government agencies have been able to see work, and this has resulted in inputs of expertise to support specific activities. Media coverage highlighting Bede issues of disenfranchisement has also helped to raise their profile. However, teachers’ own limited educational experience, and their extensive training needs do place some limitations on the scope of the mobile schools. There is also a need to officially address Bede ‘drop-out’ patterns which make schools who educate them for only two months appear to have high drop out rates, attracting negative attention from government officials targeting universal retention.

2. Moving with learners – using community volunteers

An innovative literacy drive, from the Rural Litigation and Entitlement Kendra (RLEK)²², again an NGO, focused on the Van Gujjars of North India, a Muslim group that practises transhumance between Shivaliks and the Upper Himalayan Region (Kaushik 2008 in Dyer, 2009). Subjected to exploitation by the Forest Department, traders, money-lenders as well as milk middle-men, they remain untouched by any development benefits – no-one within this group was literate when the project started. For this reason, the Literacy Programme depended on the use of volunteer teachers from other communities, one of whom was appointed for every five Gujjar families living nearby. Most volunteers had gained qualifications at the intermediate stage (secondary schooling). There were three starting points for selection of the volunteers:

- Many youths remain unemployed after passing secondary/intermediate schooling, and this makes them feel inferior and become devalued by their families – they need something to do.
- The programme identified some 350 young people who needed to be physically fit enough to migrate with the community, and be committed and ready to take on this challenging task.
- Volunteers needed to have a secular mindset.

Volunteers received a month's training in the culture and practices of the Van Gujjar community, including training on how to survive wildlife without guns, as they had to trek and stay in the forest. Moving then with the community during their migratory cycle, they received contingency expenses at the rate of Rs. 1 / km and were provided food and lodging by the community.

The Van Gujjars were asked to specify what they would study and opted for accounts, to be able to deal with milk traders; and English so that they could read road signs, billboards and registration numbers of heavy vehicles so they could note those that killed their cattle on the road. RLEK prepared three primers (basic textbooks) called *Naya Safar* (New Journey) based on the technique of Improved Pace and Content of Learning. The writers were exposed to the culture, heritage, lifestyle and the problems of van Gujjars; and one male and one female prospective learner were involved in preparing these primers. Stories in the primers were selected to enable the students to identify with the problems such as the death of a buffalo, dispute between two friends, looking after the jungle, maintaining individual health and community hygiene and planting saplings. Subjects dealt with in the primers included cooperative systems, social harmony, improvement of environment, significance of conservation, personal hygiene, family planning, child health care, immunization, cattle breeding, milk production and marketing. In the teaching-learning sessions, the focus was on the 3 R's – Reading, wRiting and aRithmetic. Classes were conducted under the shade of a tree at noon and in Gujjar camps ('Deras') at night as per the convenience of the community.

The adult literacy campaign faced opposition from Rajaji National Park authorities who tried to block the movement of volunteer teachers. The Forest Department also threatened to arrest volunteers, warned that the programme should be stopped immediately and branded it anti-national. To address these problems, RLEK called a meeting of Van Gujjars and volunteers and declared that any volunteer arrested for educating the Van Gujjars would be rewarded with Rs. 10,000 by RLEK; and a letter would be written to the President of India to honour such volunteers. Taunts that it was a publicity stunt have been mitigated by an annual literacy fair where Van Gujjars can demonstrate their educational and literacy skills to journalists, social workers and educationists.

The programme claims that since it began, 21,000 Van Gujjar adults have become literate and can now negotiate better terms of re-settlement with Rajaji National Park authorities, and have been offered 2 hectares of land. They have also begun to form milk co-operatives, and fought for and procured their voting rights. The adult literacy work has also led to a demand for formal schools for Van Gujjar children and the NGO has set up four exclusive schools for them. In collaboration with local communities, it has also formed 20 schools in the hills, which benefit children of all the hill communities. Each school has at least one teacher from the Van Gujjar community; schools are monitored by the villages' Self Help Groups. Questions over the sustainability of the programme remain, since there is no state support for the programme, and success is leading to the classic dilemma of potentially over-stretching the NGO and thus potentially weakening its capacity to respond flexibly.

A major success of this programme has been that several learners have gone on to become para-vets, which has improved animal health, along with the Van Gujjars' own new abilities to check expiry dates on medicines. This underlines Morton's (2008: 5) view that 'A specific institutional innovation of value to pastoralism is that of community-based animal health systems, which can deliver animal health more widely and more effectively than either governmental or private systems based on the use of qualified vets'.

3. Community boarding school

In India, elders of the Rabaris of Kutch, a transhumant pastoralist group, have established a private but state-recognised community boarding school. This school responds to the community demand for education to facilitate occupational diversification (Dyer and Choksi, 2006). Children are taught by state-qualified teachers who are Rabaris but hail from sedentary families; the state curriculum is used but the cultural milieu is Rabari. The school successfully provides the formal education and certification that qualify children to enter the wider job market, but within a school culture that respects Rabaris' social values. In this way, parents can avoid sending children to state boarding schools that serve all social groups, which Rabaris often feel uncomfortable about, and also have known problems in relation to quality.

The disadvantage of this pattern of schooling is that, as it is not located within the domestic sphere, it necessitates the knowledge trade-off discussed earlier. Children who attend the Rabari boarding school are not available to acquire herding skills. As school graduates, they then compete with all other social groups for paid work. At that point, Rabaris grapple with, on the one hand, a relatively low stock of social capital and, on the other, sufficiently high caste status to be denied inclusion in an official category of disadvantage which the state confers on some groups in order to facilitate access to formal sector jobs.

4. Community schools in nomadic areas

While there is no documented experience of this approach in South Asia, it is instructive to learn from work in Tibet. Bangsbo's (2008) discussion of Tibetan community primary schools for Tibetan children living in high-altitude herding areas identifies parental reluctance to send small children, especially girls, to state boarding schools. In response, and continuing their long tradition as educators, many local Buddhist lamas have initiated the establishment of small community schools in high-altitude herding areas. These are often funded through these lamas' charitable organisations in foreign countries, reflecting international concern with the future of Tibet. Community schools offer small children the opportunity to experience formal education within the domestic sphere and 'a cultural education that complements their institutional schooling' (ibid p. 80) while, crucially, allowing them to gain the indigenous knowledge they need if they choose to remain herders. Parents' reasons for using these schools are consistent with experience elsewhere; boarding schools are unattractive because they require the splitting of the family and because they may disseminate through the formal and informal curricula political/socialising messages that families wish to resist. In the Tibetan case, language is also an issue as parents fear that children who code switch between Chinese and Tibetan may not become sufficiently fluent in Tibetan.

These community schools enjoy relative freedom from the rules governing state schools over, for example, the medium of instruction and curricular content. But there is the typical problem of accreditation in relation to 'alternative' education: they are not authorised to provide certificates of graduation. Transition into higher education levels remains problematic. Community enthusiasm for schooling may dwindle if this cannot be addressed; there is already disappointment that elementary level education does not result in a good job. Conversely, and probably in part reflecting these bureaucratic obstacles, Bangsbo (2008) reports that parental aspiration for higher levels of education remains low.

Educational innovations with potential for nomadic groups

The region is also home to innovative educational provision that had good potential for inclusion of nomadic groups. Provision of opportunities for Open and Distance Learning, for example, has expanded rapidly, reflecting the high levels of technological innovation discussed in the paper. ODL is widely seen as adaptable, cost effective, diverse, and open, offering flexibility in relation to pace and place (Chakrapani, 2009); and as ‘a viable option for improving access to, and the equity and quality of, basic education in rural settings’ McQuaide (2009: 1). The opening address of a Commonwealth of Learning conference on this subject proposed that ‘Moving knowledge to suit the needs of the learner rather than moving bodies to suit the convenience of institutions seemed to respond to all of the requirements for learning and training in a knowledge-based society’ (Dhanarajan, 2008). Rapid expansion of the Internet has added a new dimension, but while e-learning has considerable potential to provide flexibility, over-reliance on it raises potential equity implications (McQuaide 2009). Challenges of providing equitable access to the technological innovations for learning may be exacerbated in much of Asia, for example, by ‘inadequate infrastructure, prohibitive costs, and unreliable telecommunication services’ Dhanarajan (2008). Baggaley et al. (2005:1) argue that far too little attention is paid to accessibility problems ODL technologies create and that this is leading to ‘less efficient educational delivery than was possible with traditional media and with earlier online methods’. However, assumptions cannot be made: in Tibet Bangsbo (2008: 79) reports that nomadic tents already carry solar panels that are connected to TV and DVD players, demonstrating an existing use of contemporary technology on which a distance learning initiative proposed by the Ministry of Education can build.

India's National Institute of Open Schooling has developed huge outreach and demonstrated that, at the secondary level, tried and tested technologies such as radio, print media and television can be effectively combined with self-study and sessions in study centres, to continue to provide the basic tools for ODL (Sujatha, 2002). However this modus operandi underlines our point that the ODL model misses new opportunities by emulating existing ‘schooling’ models – which offer flexibility in location but much less so in relation to curricular context tailored to learners’ needs, and language of instruction.

In rural China, three models of distance learning delivery have been developed in a programme which, on completion, is intended to benefit some 118 million rural primary and secondary students (McQuaide 2009; see also Robinson, 2008). In this case, distance learning is a supplement to an existing school system, the main benefit of which is expected to be facilitating innovative application to improving the quality of learning-teaching processes in these rural schools. However, evaluations (cit McQuaide, 2009) suggest that traditional approaches to learning and teaching have not been displaced by this technology: one identified challenge is how to transform students into active learners who initiate creative learning and critical thinking, rather than being passive learners ‘driven by exam scores’; a second is how to enhance students’ practical skills through changes in teaching methods. Funding constraints have not allowed all project schools to pay for internet facilities or purchase DVD materials. Evaluation of the project suggests that while models one and two are working reasonably well because they are low cost and easy to operate, the third model requires a more innovative approach to developing strategies and policies that support cooperation and sharing of teaching materials.

The Chinese project experience suggests that for Internet-facilitated learning technology (such as model three) to make an impact in such contexts, it must be accompanied by policy measures (such as subsidies) that ensure learners have full access to the technology; and this requires state investment in underdeveloped regions (Gulati, 2008; see also Uyanga, 2005 for Mongolia). However as we have argued in the main paper, distance learning programmes are not transformative in themselves; and certainly not if technology is merely used to facilitate delivery of materials developed at distance, without consultation with communities and teachers.

Radio – a tool for community education

South Asian experience with the use of radio has demonstrated many successes (see Pringle and Subba, 2007), often because the basic premise of lifelong learning, rather than schooling substitute, has been explicitly recognised. In contrast with the high-tech approach of much e-learning, useful innovation in this area has focused on ensuring the accessibility of the technology. In Mongolia, for example, the Radio Frontier project (<http://bschool.washington.edu>) identified the much diminished use of radio since the supply of Russian radios ceased following the collapse of the Soviet Union. The Project worked to provide access to information and education through hand-cranked radios (2 minute crank = 5 hours; about \$10 each compared with \$50 for a solar powered radio or \$1 for 6 batteries lasting 2 weeks). This has again made weather alerts, news, price trends, educational and cultural programmes available to moving populations.

The Gobi Women's Project (Box 14) addressed the question of how best to meet the newly-arisen needs for information, providing culturally appropriate materials within a decentralised framework of lifelong learning, but in the context of very high adult literacy. This Project used radio and print combined and was supplemented by visiting teachers for face-to-face contact. Radio instruction provided learning opportunities, framed within an income generation motivation geared to the new market economy. Key areas for content included livestock rearing techniques; family care; income generation; literacy cross-cut these themes. Provision mixed central and local inputs in both materials and broadcasts; local stations offered local content and topicality and broadcast at times convenient to the women; and women kept a learning journal. Visiting teachers supported the learning process in a ratio of 1:15 learners, meeting up to twice a month and providing feedback to and from co-ordinating committees. Small information centres also set up as meeting points; materials and technical support were available – for meetings, demonstration sessions and individual study. Consultative committees at national, provincial (aimag) and local (sum) levels were set up. Collaborative arrangements were established with the state-owned Mongol Radio in Ulaanbaatar, and three local radio stations were upgraded to meet the project needs.

Box 13 The Gobi Women's Project

The Gobi Women's Project 'opened up new areas of learning directly related to the needs of the women, breaking with the past formal education system which was more scholarly in approach and less based on local culture. The mobilisation of nomadic women and their new-found skills also depended on using the national education crisis as a positive chance for developing new ways of thinking rather than carrying on blindly with a formal system that couldn't adapt. The Gobi Women's Project has proved effective in using radio to create change, bettering existing opportunities and even providing thousands of women with the tools to tackle their environment. Nomadic women, in this process, have become active learners and agents of change in the desert'.

(<http://www.unesco.org/education/educprog/lwf/doc/portfolio/case1.htm>)

This project gained the interest of other learners within the family, thus effectively moving towards being a family literacy project although initially conceived quite differently: 'Radio has had the ability to bring various forces into play, the most important of which is the interaction of people and flows of information. This interaction lies at the heart of the project's success. Thanks to the women, whole families ended up benefiting from the project. It is the women who passed on their knowledge to their children, who informed their husbands of their new capabilities and saw the enormous potential that could be drawn from using local capacity'.

Nepalese experience with community radio, cited in the paper, also demonstrates success and important learning about the educational uses of this medium (see also Pringle and Subba, 2007). An interesting development has been networking among radio stations, which has promoted content sharing, programme distribution, national and sub-national training workshops and information exchange. This experience also underlines the importance of developing a coherent policy around language and its relationship to the empowerment of diverse linguistic communities, and considering how language and learning should be pedagogically linked.

Conclusion

This annex has demonstrated that in the Asian context, there is a significant civil society engagement with the education of nomadic groups, and this is generating pockets of highly innovative provision. This appears to contrast with African experience, where both the state governments and INGOs demonstrate significant institutional activity, but there is a lower engagement by local civil society organisations. However, provision still remains relatively rare, and institutionally isolated; and there remains a significant question over the sustainability of such initiatives.

This question requires a reflection also on the role of voluntarism. This is a useful short term strategy that provides 'teachers' who not only offer a service but also, as RLEK demonstrates, find an application for their own education. The Indian state similarly appealed to such altruism in its Total Literacy Campaign (Athreya and Chunkath, 1996). It is ironic that such teachers are only available because the kind of education they have experienced may have enhanced their social standing (Jeffery et al. 2007), but has not been effectively linked to employment.

These regional efforts to imagine educational provision that supports nomads in sustaining their viable livelihoods, rather than turning them away from it, are important beyond the immediate context also. They underline the need to think about creative alternatives to educational provision that do not further increase the already large numbers of the educated under/un-employed. They demonstrate a continuing need to keep returning to the 'problem' of multi-faceted, contextual demand, rather than the logistics of supply – and how educational provision can best understand and respond to it.

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Annex 2:

African experience of
nomadic education

Annex 2: African experience of nomadic education

‘Pastoralism should be abandoned’ (Headteacher, Marsabit North).

‘When I finally got my first wage, four years ago, I bought twenty goats’ (Headteacher, Turkana Central)²⁴.

Key points

- The challenge of including nomadic peoples in universal primary education is increasingly a key concern in many institutional contexts at both national and international levels.
- There is a huge drive towards educational services amongst pastoralists, who increasingly take matters into their own hands with regard to the nature and direction of the educational services they require.

African nomads are estimated at about sixty million across twenty countries. The successful efforts by African states to close the gap in relation to the target of universal primary education have largely failed to include them. Awareness of this challenge has been growing steadily over the last ten years (Box 15).

There is a new trend of formal institutional recognition. At the time of the World Education Forum in Dakar, the National Commission on Nomadic Education (NCNE, created in 1988) was exceptional in the African context (Federal Republic of Nigeria, 1987). Today, similar initiatives are mushrooming, particularly in East Africa. The Tanzania Basic Education Master Plan includes two components aimed at increasing the enrolment of nomadic communities (MOET, 2000). The Ethiopia Federal Ministry of Education has a ‘Pastoralist Programme’. The Puntland State of Somalia is preparing a ‘Nomadic Education’ unit (MOEP, 2007²⁵). In March 2009 the Sudan Federal Ministry of General Education launched a ‘Nomadic Education Strategic Plan’ (UNICEF, 2009). The Kenya Ministry of Education is working on a ‘Nomadic Education Policy’ involving the creation of a Kenyan Commission on Nomadic Education (MOEK, 2008a).

The last ten years have also been quite exceptional because of the huge growth of interest in ‘educational services’ amongst pastoralists, who are now not only welcoming every effort to reach them, but are also increasingly taking the matter of acquiring ‘modern education’ into their own hands²⁶, often in unexpected ways which would have been unthinkable only a few years ago (Box 15). These developments signal that pastoralists are now well aware that education is essential to their full civic engagement. Indeed, they are increasingly going beyond that, defining the nature and direction of personal development they expect from educational services and engaging with national and international actors in order to achieve them.

This Annex is organised into three sections. The next section looks at key issues, as emerging from the literature and relevant to the focus of the main paper. The second section presents the main approaches. The third section deals with innovative experiences.

24. Most of the quotes in boxes are from interviews carried out during a short visit to school facilities in Northern Kenya, in May 2009.

25. <http://education.puntlandgovt.com/nomads.php>

26. Indeed, already in 2000, Turkana cattle keepers deep in the Loima Hills were asking for education (Krättli, 2006), and in 2001 the Gabbra on the Kenya-Ethiopia border were taking community-wide decisions to influence parents to send their children to school (Sue Cavanna, personal communication, 2009)

Box 14. Nomads and education: a rising wave

Education and nomads in the public debate: growing awareness

In 2000, Save the Children published a study aimed at identifying 'processes that could move school systems in a direction more appropriate to the needs of disadvantaged children' (Molteno et al., 2000: 5)²⁷. A few months before the World Education Forum in Dakar (WEF), the World Bank funded a desk study to map the scattered literature on pastoralism and education (Krätli, 2001)²⁸. Also the African Development Bank commissioned a literature review looking specifically at the situation in East Africa (Carr-Hill and Peart, 2005). The study was carried out in 2001-2002 by a UNESCO/UNICEF task force and financed by the Japanese Trust Fund. In 2001 UNICEF and the Ministry of Education in Niger organised an International Workshop on Basic Education for Nomads (MEBA/UNICEF, 2003). A seminar on pastoralists and education in the Horn of Africa was held in 2004 in The Hague, by PENHA and LEAD-UL (Bosch et al., 2006). The same year, Action Aid commissioned a survey of the impact of Free Primary Education on Kenyan pastoral communities (Sifuna, 2004). Oxfam also produced its own study on nomads and education (Oxfam, 2005). In 2006 the Kenyan Ministry of Education and UNICEF hosted the 'Forum on Flexible Education: Reaching Nomadic Populations in Africa', funded by the Commonwealth of Learning and the Commonwealth Secretariat (MOEK/UNICEF, 2006). In 2007, USAID and PACT Ethiopia funded a new study of education provision to pastoralists (Anis, 2008) intended as an update of the UN study of 2001-2002. Last year, following almost a decade of experience with Alternative Basic Education with pastoral groups, the Save the Children Alliance organised a 'Regional Pastoralist Education Workshop' in Addis Ababa (Fonseca, 2008) and is now preparing a book on the subject.

Education in the making: when pastoralists take the initiative

A regional association of WoDaabe in Niger has a website in French and English²⁹. Having heard of a training programme for pastoralists run by the International Institute for Environment and Development (IIED), they contacted the London based think-tank asking for training in functional literacy, French and basic management courses (Ced Hesse, personal communication, February 2009). On IIED's advice, they then contacted the pastoral NGO ARED in Dakar (Louis de Rycktel, personal communication, March 2009). In 2008, the Boran of the Merti Rangeland Users Association (Kenya) contracted a specialist lawyer to advise them on matters of oil prospecting activities by a Chinese company operating in their area. In March 2009, Olisarali Olibui, a young Mursi herder from a remote village in the low Omo Valley (Ethiopia), was invited to the International Film Festival in Addis Ababa, to pre-screen a much praised documentary he made on his people (Olisarali Olibui, personal communication, 2009)³⁰. Pastoralists in Borena (Ethiopia) have established their own boarding facility which is managed by a committee of the students themselves (Anis, 2008).



27. This was shortly followed by a 700 page report on the education of nomadic children in Europe (SCF, 2001).

28. Before then, intermittent international attention had resulted in the Seminar on Basic Education for Nomads in 1978 (UNESCO/UNICEF, 1978) and the UNESCO Regional Seminar on the Education of Nomadic Populations in Africa (Ezeomah, 1997). Sections on education could be found in a few works reviewing the literature on service provision to pastoralists: Sandford (1978), Swift et al. (1990) and Bonfiglioli (1992).

29. <http://www.djingo.net/en/assemblee.htm>

30. The documentary was produced with UK film-maker Ben Young. For further information: <http://shootingwithmursi.com/>.

Visibility, mobility and production

Key Points

- Visibility of nomadic peoples at the institutional level is not yet matched by dedicated structures and inbuilt mechanisms for statistical analysis.
- Pastoral mobility is increasingly recognised as a reality, and is not expected to disappear in the future.
- In selecting an appropriate way of providing education to pastoralists, decision-makers need to be informed by a more sophisticated understanding of mobility and its links with animal production strategies.

As seen in the main paper, the institutional visibility of nomadic populations in the context of educational service provision is growing, particularly with regard to Africa. Pastoralists made it very briefly into the Education For All Global Report 2003-4, missed out on the following year (EFA-GR on quality) but were mentioned in all the subsequent reports³¹, if only briefly. Unfortunately, national data on education do not provide specific information on pastoralists or nomads. In Kenya for example the data on education are up to date and well analysed but not such that specific information on pastoralists can be disaggregated (MOEK, 2008b). In the Education For All Global Report 2009 references to pastoralists are based on development data from Ethiopia and the Poverty Reduction Strategy Paper from Kenya.

References, when present, are equally general in the SACMEQ³² reports, where data aggregation by province does not allow the analysis to focus on pastoralists. For example, enrolment is not uniformly distributed and there can be huge differences between the actual enrolment rate in specific districts and the province average. In Kenya, the Gross Enrollment Rate in Rift Valley Province in 2006 was 112.4% but Turkana District was 46.7 % (MOEK, 2008b).

The SACMEQ II Report from Kenya highlights that: 'the formal education system, which requires children to be in school for most of the day, is not quite suitable for pastoralists, as children are required to look after cattle [...] the education system should consider the existing diversities and integrate the needs of the various communities in order to accommodate all children' (Onsomu et al., 2005: 147-148)³³.

Implicit in this call for structural adjustments of the education system to 'the existing differences' amongst the communities who are supposed to benefit from it, is the consideration that pastoralism is here to stay. This point was repeatedly made at the international conference on nomadic education held in Garissa, Kenya, in 2006. The representative of the UNESCO Kenyan National Commission highlighted that 'twenty five percent of Kenya's population, mainly pastoral nomads, live in the arid and semi-arid lands [...] Although nomadic communities are embracing change, pastoralism will remain their mainstay in the foreseeable future' (Kakonge, 2006: 65, 67). A representative of the Ethiopian Federal Ministry of Education said that 'pastoralists have adapted to environmental challenges by developing a distinct and unique economic knowledge system to sustain themselves and maintain their livelihood' (Bekeke, 2006: 57).

This engagement with pastoralism and the notion of pastoral production on the part of institutions working on education is an important advancement, even more so at a time when pastoralists, as we have seen, are turning to education with great interest. It is therefore crucial that the framework through which pastoralists are recognised does not oversimplify their reality on the ground.

31. All EFA reports can be downloaded from <http://www.unesco.org/en/efareport>

32. Southern and Eastern Africa Consortium for Monitoring Educational Quality; the reports can be found at <http://www.sacmeq.org/reports.htm>.

33. A reference to pastoralists was also present in the Kenyan SACMEQ I report (Nzomo et al., 2001: 11-12).

The present trend is to assume that the school system caters for the ‘sedentary’ people, with a need to introduce additional measures for reaching the ‘nomads’. Hence, a renewed interest in ‘mobile’ schools and the emphasis on ‘nomadic’ education. However, the categories of ‘sedentary’ and ‘nomadic’ are to be treated with caution when discussing educational options (for example between mobile schools, boarding schools and open-distance learning).

In practice, ‘nomadic’ and ‘sedentary’ rarely define discrete groups of people. Both conditions often coexist within the same community or the same family, even alternate within the life of an individual. The swinging of pastoral households along a continuum between full settlement and high mobility is a well known phenomenon (Toulmin, 1983, for a recent overview see Homewood, 2008). In certain cases, as for example many communities in the so-called Karamojong cluster, settlement and mobility are integrated within the same dual system of production, with people regularly moving between ‘settled’ and ‘mobile’ teams (McCabe, 2004; Stites et al., 2007). Many Peul (Fulani) households in Niger practice both farming and pastoralism, usually with some brothers specialising in farming and others in cattle keeping within the same family. In order to prevent the actual splitting of families, brothers with different specialisations train each other’s sons (personal communication during a meeting with agro-pastoral Peul at the village of Eguidi, Niger, 2008). Pastoral nomads in both East and West Africa have started to create ‘nominal’ settlements (often with just a few people and a school) in an attempt to strengthen land rights and attract services³⁴. In all these cases, although not exactly on the same terms, there is continuous exchange in both directions between ‘nomadic’ and ‘settled’ populations, thus making the nomadic-sedentary divide an inadequate guide for targeting education delivery solutions.

People directly engaged in providing education to pastoralists have started to realise that simply assuming that they are either mobile or settled is not enough (Box 16). In order to reach pastoralists with reliable and effective educational services, it is key to understand how they actually make their living and how variable mobility patterns are linked to complex strategies for animal production (Box 17). It is crucial to avoid the temptation of simply replacing the institutional invisibility of pastoralists (as in the past) with a new and more subtle form of invisibility, in which institutions work with ready-made and iconic notions of pastoralism but still fail to directly and responsively engage with them. These issues closely relate to a main area of debate in ‘nomadic education’ in Africa, that of curriculum relevance which is discussed in the next section.

Box 15. Beyond the nomadic/sedentary divide

‘The old distinction between nomadic and sedentary is not very adequate anymore, at least in Turkana. It might make more sense to refer to actual strategies of production rather than degrees of mobility, maybe talking of “active” and “non-active” pastoralism.

If I had to simplify, I would say that I am aware of three kinds of pastoralists in Turkana. First, those who arrive at the outskirts of towns because they have lost their livestock. They have been attracted by the hope of a new life, or even just a life, and by a better chance of receiving services, particularly food relief. Their children have nothing to do, so they enroll them in school (if for nothing else than a plate of beans through the school feeding programme).

Then there are those who are on the hills with the cattle. Cattle only thrive on very good pasture, so these people move a lot. They are wealthy but they bear extreme conditions of harshness and insecurity and almost an absolute lack of services: they have regular contacts with markets, but for everything else they are on their own.

Finally, there are those who for various reasons struggled to keep up with the demands of cattle management, and have turned to small stock and/or camels. They still live in temporary dwellings but they can stay in the same place even for a few years. As much as their livestock requires mobility, they have adopted a dual system, like the Karimojong in Uganda. The households in this third group are still fully productive pastoralists, just like the cattle keepers in the hills.

All the livestock on the markets here and all the livestock we export to other districts and up to Nairobi, come from these two groups. Most households in these two groups, the fully mobile and the mostly settled, face serious challenges in using the present education system: they both live in remote areas and their children have important work commitments within the household. Moreover, even the relatively sedentary life is open to occasional changes of location which do not fit with the delivery of education using permanent buildings’

Eris Lothike, Director of Oxfam Turkana, Kenya, personal communication, 2009.

Box 16. Mobility in a nutshell

Pastoral development in Africa has long struggled with models of agricultural science originated under fundamentally different conditions of production (typically from Europe), where small and regular ecological variations could be controlled, whilst large and unpredictable variations could be ignored as exceptionally rare or externalised through technological inputs.

The European model...

In relatively stable and temperate environments, seasons are predictable, with uniform precipitation. Vegetation dynamics are evenly distributed across time and space. This kind of environment lends itself to technological inputs aimed at capturing economies of scale while boosting outputs. With the exception of vertical transhumance, in European agricultural history, mobility has largely been a measure to counter exhaustion of supply when the producer had no means or knowledge to regenerate it (examples of this kind of 'mobility' are fallow cultivation or the simplest systems of grazing enclosures). The 'rationalisation of agriculture' through command-and-control approaches has progressively reduced the need to move in order to maintain production. This has been done mainly by replacing the limited local supply with the ever larger use of external inputs. From this perspective, mobility recalls basic and relatively backwards forms of production that belong to an agricultural past.

... applied to African drylands?

Unfortunately, the mobility of specialised pastoralists in Africa has been (mis)understood through this 'European' lens. Yet in the African drylands the conditions of production are fundamentally different from the stable and temperate climate that set the stage for European agriculture. Scattered and irregular precipitation results in unpredictable and heterogeneous distribution of nutrients across both time and space. 'Average' parameters (of rainfall, biomass distribution, grazing pressure, etc.) are of little use as huge deviations from the average are the norm (Dyson-Hudson, 1966; Behnke et al., 1993; Scoones, 1995). The poor average outputs of the drylands actually hide spikes of nutrients. As plants both accumulate and use nutrients throughout their life cycle (Bremen and de Wit, 1983; Alimaev, 2003), nutritional content can be significantly different in different parts of the plant, at different times of its development and even across the 24-hour cycle (Kim, 1995; Orr et al., 1998; Mayland, 2000). If the bush vegetation developed everywhere at the same time, most of these nutrients would be used by the plant before the livestock arrives to feed on it. In the drylands however, the patchy development of fodder plants gives organised herders with well-trained and adapted livestock a unique advantage (Bremen and de Ridder, 1991; Schareika et al., 2000). Studies of mobile herds in Mali found that they extracted from the range a diet substantially higher in nutritional content than the average nutritional value of the pasture they grazed on (Diallo, 1978; Traoré, 1978; cf. Bremen and de Wit, 1983).

How mobility – and pastoralism – interacts with the vegetation

For efficient harvest of the short-lived concentrations of nutrients of the drylands, livestock need complex sets of skills, largely obtained through learning (Provenza and Balph, 1987; Launchbaugh et al., 1999; Provenza, 2003). Only livestock purposefully bred and trained can rapidly reach and literally pick-and-choose only the spikes of nutrients from the vegetation, selecting the best patch, the best parts of the best plants, the best time and the best combination of plants (Krätli, 2008). Mobility is key to enhancing animal performance and productivity in the African drylands.



Curriculum

‘... a balance will need to be struck between the “integrative” and the “distinctive” qualities of any programme for nomads’ (Carr-Hill and Peart, 2005: 16).

Key Points

- There is general agreement around the idea that reaching nomadic children with an educational option capable of delivering the formal national curricula is difficult but preferable.
- Making national curricula relevant to nomadic children cannot be done by adding ‘relevant topics’ but requires a more fundamental approach.

Most nomadic education programmes follow their own curriculum. This is either a non-formal education curriculum (sometimes the official non-formal education curriculum of the Ministry of Education) or a reduced and adapted version of the national curriculum for formal education, designed to respond to the specific conditions of nomadic children as well as, usually, to a shortage of qualified teachers and/or teaching and learning materials.

On the other hand, the recommendations from international workshops on nomads and education have stressed the importance of providing nomadic children with education of a quality and status equal to that provided in standard schools (Ezeomah, 1997). This recommendation is in order to avoid creating pockets of second-class education, either because of lower quality or because of lower status and legal recognition. This position also seems to match the view of many pastoralist parents who, just like most parents from other backgrounds, invest in their children’s education as an avenue to future status and economic reward (Krätli, 2008; Ahmed, 2008; Little et al., 2009).

The main obstacle to this strategy is that national curricula are typically designed from the perspective of the urban elite and not from that of nomadic children (Carr-Hill and Peart, 2005; Krätli with Dyer, 2006; Federal Republic of Nigeria, 2003; cf. also MOEK, 2008a).

The text books for the Kenyan Certificate of Primary Education (KCPE) are illustrative of this. The reader should keep in mind that, as shown throughout this review, Kenya is on the front-line in the effort to include pastoralists in universal primary education. In his speech at the ‘Forum on Flexible Education’ in 2006, Kenya’s Ministry of Education Permanent Secretary, Prof. Karega Mutahi, ‘concluded [...] that it was vital that the Forum addressed the key factors that inhibited children from accessing education and that appropriate solutions be found that did not alienate nomads or antagonise their culture and life style’ (MOEK/UNICEF, 2007: 13).

The KCPE³⁵ Peak Revision Science textbook has a picture of a British cattle breed on the cover (see Figure 1a; Ojwang’ and K’Opiyo, 2006). In Unit 6, on livestock, ‘herding’ as a method of grazing livestock is illustrated with a picture of Jersey cows and a dismissive description that ignores the reality of pastoralism in Kenya and the rest of the African drylands³⁶ (see Figure 2). The sophisticated herd management techniques of drylands pastoralism would offer excellent grounds for learning science (for example ecology, animal behaviour and animal health). Instead, pastoral livestock systems are omitted from the KCPE science book. Teachers and school children in most parts of Kenya eat meat produced in the pastoral system but learn about ‘zero-grazing’ and exotic breeds. On the other hand, The KCPE Peak Revision Social Studies has a group of colourfully dressed dancing moran³⁷ on the cover (see Figure 1b; Okoth and Ndaloh, 2006). The message is clear: what we can learn from pastoralism belongs to the sphere of tradition rather than to a present of evolving knowledge and economic production. The same perspective is found in the fictional story on livestock keeping in the Phoenix Young Readers’ Library, Hellen the Milk Girl (see Figure 3; Anywar, 2006) and in the Predictor KCPE Best Compositions³⁸ Revised Edition 2008 (see Figure 4; David, 2008). It is worth repeating that these examples from the KCPE syllabus are neither extreme nor isolated. Although relatively little work has been done on the ‘localised’ nature of national curricula, the studies using discourse analysis on textbooks are consistently finding the same problems³⁹.

The most common approach to the issue of curriculum relevance is to introduce additional ‘relevant’ topics, typically identified and dealt with from the same urban perspective responsible for the rest of the curriculum. As a consequence, ‘relevance’ is often construed from a position of ignorance with regard to both pastoralists as producers and pastoralism as a specialised production system, and on the basis of folkloric notions of ‘nomads’ culture’ and ‘way of life’ (Box 17) (Tahir, 2006).

Additional ‘relevant’ topics usually reflect what the urban elite feel nomads should learn. For pastoralists, this typically includes modern animal husbandry and how to sell animals and their products (Krätli, 2001; MEBA/ UNICEF, 2002; Carr-Hill, 2005; ; MOEP, 2007). In a communication to the Working Group on Minorities of the High Commission On Human Rights in 2005, representatives of the Oromo pastoralists recommended, amongst other things, that the regional and federal states in Ethiopia: ‘[create] access to pastoral education in a manner that is appropriate to ecological and socio-economic realities of pastoral regions’ (OHCHR, 2005: 2⁴⁰). From the perspective of pastoralists themselves, it is therefore crucial that ‘the socio-ecological realities of pastoral regions’, not pastoralists’ ‘culture and lifestyle’, are adequately understood. Ensuring that adequate processes for such understanding are built into the education system is a concern not only with regard to curriculum but also to the training of ‘nomadic school’ teachers.

Box 17. School education and animal production

‘Now children are needed to look after the livestock, but I see many families losing their livestock. With little or no livestock parents are more ready to send their children to school. When there will be no livestock left, all children will finally be able to go to school’ (Headteacher, Marsabit North, Kenya).

‘We always relate to pastoralists thinking that we know better, whatever the issue, but now that I hear about the complexity of pastoral production strategies I can see that we actually don’t know the first thing about pastoralism’ (District Education Officer, Marsabit North, Kenya, personal communication, 2009).

35. The Kenya Certificate of Primary Education.

36. Every experienced Kenyan pastoralist can tell you that animals’ selective feeding is key to the pastoral production strategy, yet their children at school learn that herding is when ‘the animals roam in the pasture feeding on any grass or leaves they find in their way’ (Ojwang and K’Opiyo, 2006: 47).

37. A Maa word (Maasai) that has become of common use in English when referring to African pastoralists of the ‘warrior’ age group.

38. The Predictor KCPE Composition Guide is meant to ‘assist the students to write a good composition’ (David, 2008: 1). Composition writing is part of English examination in the Kenya Certificate of Primary Education (at the end of Grade 8) and counts for 40% of the total marks.

39. Reviews of school textbooks in Uganda and Mali found very similar problems (Krätli, 2006; Sanou, 2002). Efforts to enhance curriculum relevance by the Nigerian National Commission for Nomadic Education also met with similar obstacles (Tahir, 2006, citing Krätli, 2001).

40. The same point is also made in one of the most recent and comprehensive studies of education provision to pastoralists in Kenya: ‘Educational interventions for pastoralist communities require a proper understanding of the social and economic factors which directly affect these communities. The tendency hitherto has been to view improved education provision largely in terms of providing more and better schools’ (Sifuna, 2005: 502).

Figure 1(a-b). Covers of KCPE Peak Revision series (2006-2008)

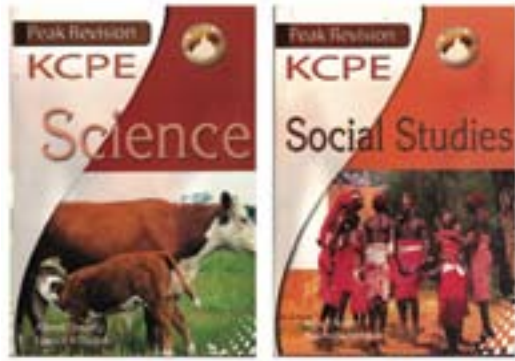


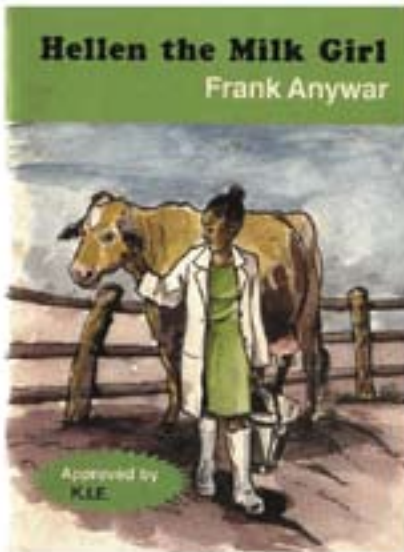
Figure 2. KCPE Peak Revision Science (2006), section on ‘Livestock’

1. Herding

In this method, the farm animals are allowed into the field to graze freely. The animals roam in the pasture feeding on any grass or leaves they find on their way. This is not the best grazing method as it may lead to serious problems such as soil erosion or lack of proper feeding by some livestock.



Figure 3. Phoenix Young Readers’ Library, Hellen the Milk Girl (2006)



Chapter One

Once upon a time, there was a small family that lived on the outskirts of Kisii town. This family had a small piece of land. They grew some crops and also kept cows on this land. They grew bananas, coffee, tea, potatoes and many types of fruits. Before land had become scarce in Gusiland, they kept many animals. These animals grazed freely far away from their homestead. There were goats and sheep, too. As land became more and more scarce, intensive farming became a necessity. People fenced off their pieces of land and kept only a few productive animals.

In this family, there was a boy and a girl. The boy was called Joe Ombati, and the girl Hellen Mora. Joe went to school at Gianchere Primary School. Hellen too went to the same school. Gianchere was a mixed school. Though younger,

Figure 4. Predictor KCPE Best Compositions (2008)

COMPOSITION 13

CAPTURED BY RAIDERS

I was astonished to see our adversaries the Maasai who had invaded us. Their objective was to plunder as many heads of cattle as they could. They also wanted to go with as many captives as they could. Earlier we had tried to bury the hatchet but all in vain.

I was lion hearted but not light hearted I had high morale and by then I had a vehement urge to attack. I armed myself to the tooth and truded boldly to meet the foe. The morans were all sullen and gloomy. Their muscles which were like mountains showed under their skins which were as dark as coal. They all seemed too be bolsterous. I tried to fight them only to find myself at a losing end. I tried to free myself but after a nasty tussle one of those ruthless, good for nothing morals got a firm grip of my hand. After rustling most of our cattle to their point of contention they commenced the journey back to their land. They took me as a present to their chief.

Teacher Training and Language of Instruction

Key Points

- Teacher training courses on working with pastoralists are rare, poorly funded and ignore the fundamentals of pastoral production systems.
- Teachers working with pastoralists outside the school-based system are typically less qualified and paid less, have a lower status and fewer opportunities for professional development.
- It is better to use the learners' mother tongue during the early stages of literacy and numeracy, but qualified teachers who speak the languages in question are still comparatively few.

Due to the remote locations and harsh conditions, working with nomadic children is often significantly more demanding for a teacher than routine school work. These teachers require specific training and incentives. In practice often the opposite occurs. The national shortage of fully trained teachers takes priority over the need to provide specialist training for nomadic education teachers.

'Specialist' training is more often provided to unqualified 'facilitators' employed (often volunteering) in non-formal education programmes. Save the Children Uganda assisted Kyambogo University to develop training for the facilitators in the Alternative Basic Education for Karamoja (ABEK) programme (Chemilo, 2005). The ABEK programme also developed plans for training formal school staff and setting up regular consultation processes across formal and non-formal schooling systems. Teacher-training institutes in Ethiopia offer a two-week course in 'Pastoral Education'. Special training for teachers in nomadic schools is offered in Nigeria. In Kenya there is no additional or specialised training. In Kenya and Nigeria there has been successful use of ODL for standard in-service teacher training, particularly the use of radio broadcasts, leading to a recommendation to set up an 'infrastructure of ODL programmes' (MOEK/UNICEF, 2007: 54)⁴¹. Integration of nomadic education teachers, to have the same status, scale of remuneration, opportunities for professional development and rights as the teachers in formal schools, is notably absent (Box 19).

Box 18. Teaching pastoralists

'I started as a Functional Adult Literacy instructor. Since March 2008 I have also worked as a volunteer mobile school. I have Grade 8 certificate [primary school]. Back in the days, I completed secondary school but could not afford the fee for the final examination [KSH 4,000 KSH]. I live on a wage of KSH 8,000 pm [a primary school teacher earns KSH 18.000-20.000 pm]'

(Roba Abudo Elema, Kalacha/Olomo Mobile School).

Standard teacher-training modules are often found to be inadequate to prepare teachers for deployment to nomadic areas (ibid.: 55). In Nigeria, teachers for nomadic schools must 'demonstrate adequate knowledge of the lifestyle of the nomads' or receive extra training (NCNE, 2006: 52). Qualified teachers from pastoral groups are still rare. In all cases, a sound understanding of the pastoral production system cannot be taken for granted even with teachers from a pastoral background. Most of the knowledge involved in pastoral production is practical and tacit, whilst today's teachers have been educated in school-based systems that separated them in childhood from direct participation in production.

41. The first Kenyan experience with the use of distance learning in in-service teacher training, in the 1960s, is described in depth in Hawkrigge et al. (1982).

Additional skills concerning ‘nomad’s lifestyle’ and [modern] ‘animal husbandry’ are recommended in most primary education programmes targeting pastoralists (MOEK/UNICEF, 2006). The problems with this approach have been discussed in the previous section with regard to curriculum relevance. The same argument applies here.

Even more than in other contexts, because of remote locations and cultural distance, teachers working with pastoralists should be capable of teaching in the children’s mother tongue. Children whose parents do not speak the national language at home are greatly disadvantaged by an education system that requires it as a condition to access school education (UNESCO, 2008). In many countries it is now recommended to teach children in their first language at least in the initial stages of primary education (usually up to Grade 3) (ibid.; also MOEK/UNICEF, 2006).

The use of the local language as the language of instruction is a main cause for the popularity of many non-formal education programmes (Box 20). Parents can understand what is being taught to their children and often also take advantage of the learning opportunity for themselves (Chemilo, 2005). However, implementers of school-based programmes using learners’ mother tongue as the language of instruction are greatly challenged by the scarcity of mother-tongue speakers with adequate teaching qualifications (MOEK, 2008; Anis, 2008). Formal opportunities to learn the language of a pastoral group (for example as part of a teacher’s professional development) are not usually available.

The next section looks at the most common measures currently taken to address the challenge of reaching nomadic children with modern education.

Box 19. Instruction in the local language (Ethiopia)

‘In the past, children who learned their first grades in the majority language and then left the village for higher education, tended to drop the dress, traditions and practices of their local village and never come back. [Today’s] children who have learned first in Suri language, tend to keep their traditional practices and show loyalty to their culture and greater confidence in themselves when they do go on to the next cycle of primary school. Consequently, the Suri tribe has become much more supportive of sending these children trained in the local language to go on to obtain higher levels of basic education’.

(Anis, 2008: 78-79)

Boarding schools

Key Points

- Boarding schools are a good option only for a small minority of nomadic children

Active pastoralists who use school services for some of their children seem to prefer boarding schools to day schools. The main reason is that boarding schools create fewer logistical problems: though they reduce the available labour, they do not require the splitting of the household with all the complications that this involves (halving the labour force whilst replicating the tasks) and allow the household more independence from settlement life⁴².

Girls-only boarding schools have increased the average enrolment of girls in their catchment areas. According to headmasters interviewed in Turkana and Marsabit (Kenya), parents in a position to send their daughters to school seem more inclined to do so if the girls can be enrolled in a girls-only boarding school with a good reputation. Compared to day school education, boarding seems also to offer other advantages. In mixed day and boarding schools in Kenya, boarders appear to perform better than day-school children from similar backgrounds (particularly girls). Teachers explain this difference with the hypothesis that day-school children might have less time for studying at home, because of labour demands and lack of electricity for doing their homework after dusk. In pastoral areas, governments often reserve boarding facilities for nomadic children or at least give them priority (Anis, 2008).

Box 20. A pastoralists' boarding school

The Shinkosh Boarding School in Ethiopia seeks to reach only the most mobile pastoralist. Built by the government ten years ago in a remote area of the Somali region, but never used, the school was recently made operational by the Pastoralist Development and Research Association (Anis, 2008).

On the other hand, it proves very difficult to ensure that parents meet their responsibilities for school fees, even just the cost of the evening meal. Moreover, whilst the necessity for food in the school is constant, the flow from the feeding programmes can be erratic. All in all boarding schools can be very difficult to manage and costly to sustain (cf. also Sifuna, 2005).

Like day schools, boarding schools still require the separation of the children in education from the rest of the family. Combined with the fact that households might have moved very far from the school, sometimes the month of holiday is barely enough to reach home and come back.

Even more effectively than in day schools, nomadic children in boarding schools are socialised into a different world (Box 22), making the return to their own communities difficult, if not impossible. This outcome is questionable when schooling leads to further education and employment — Anis (2008) finds boarding school a good option for the elite — but definitely unacceptable for the many children who drop out and/or remain unemployed, for whom being intensively socialised into the urban culture can be a serious problem⁴³. Where children from a nomadic background are a minority (as is often the case at secondary level) social dynamics can be very challenging.

Box 21. School and socialisation

The Shinkosh Boarding School in Ethiopia seeks to reach only the most mobile pastoralist. Built by the government ten years ago in a remote area of the Somali region, but never used, the school was recently made operational by the Pastoralist Development and Research Association (Anis, 2008).

Mobile Schools and non-formal education

Key Points

- Mobile schools are a positive signal from the state and a monument to the good will of the teachers, but are swamped with problems.
- Children remain dependent on conventional schools in order to complete primary education.

Mobile schools of various kinds have been tried out in Africa since the 1970s. In Kenya two pilot projects of 'Mobile Teaching Units' were introduced during the 1974-1978 development plan (Dev. Plan, 1974; quoted in Ngome, 2006: 9)⁴⁴. With support from UNICEF, Sudan introduced mobile schools in 1980. By 1994, there were 178 recorded between Darfur and Kordofan (North and West). In South Kordofan (where a nomadic education programme was started in 1998 but discontinued in 2001) 11 mobile schools are recorded as operational today, all of which are self-financed (Casciarri and Manfredi, 2009).

Over the last decade, as governments increased the efforts to meet the target of universal primary education, mobile schools have enjoyed a significant revival of institutional interest, particularly following a UNICEF funded study trip to Iran by delegations from the Ministries of Education of Kenya, Ethiopia and Somalia in 2006 (UNICEF, 2007). In Kenya, mobile schools were first re-introduced in the early 1990s by the Arid Lands Resource Management Project. Today, mobile schools supported by the Government of Kenya number more than fifty across six districts (MOEK, 2008).

Box 22. Teaching in a Mobile School

'I have 36 pupils in the morning and 23 in the evening class [from 6 to 9 pm]. I am not employed by the Ministry of Education. Have a temporary contract, no pension, no social security or medical insurance. The wage is about half of that of a school teacher' (mobile school teacher, Marsabit North, Kenya).

Mobile schools reach out beyond the effective catchment areas of conventional schools to people who have never enjoyed educational services before and who usually welcome them with enthusiasm. Teachers are chosen from amongst the local people. They are often poorly trained and operate at the fringe of the formal education system (Box 23), but are familiar with the environment and the reality of the community they work with, and can teach in the learners' first language. Mobile schools are meant to prepare children to join a conventional school at a certain grade, which varies from country to country (e.g. Grade 4 in Kenya but Grade 4, 5 or 6 in Sudan).

The lack of resources and the distance from central control allow for (and require) day-by-day adaptation of both curriculum and timetable to a degree rarely possible in conventional schools. As lessons are held close to the village, often all the people around join in: not only children, but mothers with babies and elder men and women. Girls are often more numerous than boys⁴⁵. Mobile schools are a positive signal from the state and a monument to the teachers' good will (Boxes 19 and 23), but are swamped with problems. Remoteness, harsh conditions and poor communication make staffing, administration and monitoring very difficult. As a result, the educational quality is usually poorer than the average in conventional schools. Nomadic schools are spreading on the wave of curiosity and the enthusiasm of first timers, but can they last, in the present conditions, for more than one generation of students even in the eyes of the pastoralists?

44. As reported in a study following the recent return of interest in mobile schools in Kenya, 'These "schools on wheels" did not prove viable and no mention is made of them in subsequent official documents. What is even more surprising is that no formal evaluation of the innovation exists' (Ngome, 2006: 9).

45. Based on my visit to mobile schools in Turkana and Marsabit (Kenya), in May 2009, and interviews with education programme co-ordinators within Oxfam Turkana and the Pastoralist Education Programme (PEP-IIRR) and The Pastoralist Integrated Support Programme (PISP) in Marsabit.

46. Most of the mobile schools in Marsabit (Kenya) are with the Gabbra Yaas.

As in the case of fixed schools, the efficiency of mobile schools depends on the existence of significant aggregations of children (at least enough to make a multigrade class). In pastoral settings, this means relatively large camps, usually associated with seasonality, conditions of insecurity or particular communities (for example the Yaa, the governing assembly amongst the Gabbra whose households camp together for the eight years of their mandate⁴⁶). Sudden scattering of the community – for example because of a prolonged dry spell or a sharp increase of insecurity – leaves the teacher with no class (Box 24). In practice, most mobile schools move quite rarely. In a way very similar to the non-formal education programmes discussed below, they tend to fill a service gap in relation to semi-permanent settlements.

Box 23. Mobile Schools

‘Mobile schools don’t work with scattered households. Nomadic children only come for one month during the rainy season (when there is a rainy season, not like now!). At present, mobile schools are set up in semi-permanent villages. As soon as the village scatters, they become unfeasible. Pastoralists cannot change their livelihood: it is the education system that should change’ (Gabbra women of the Kalacha Women Group, Marsabit, Kenya).

‘In the centres they have TV and other forms of entertainment, but for us over here this [the mobile school] is the only entertainment!’ (Turkana woman at the Loritit mobile school, Central Turkana, Kenya).

The most used model of non-formal education (NFE) with pastoralists is Alternative Basic Education, started in Karamoja (Uganda) as ABEK in 1998, replicated in Turkana (Kenya) as ABET in 2004, and recently introduced in Ethiopia⁴⁷. In Karamoja, the Save the Children ABEK programme targets learners 6 to 18 years of age, with a timetable worked around their household obligations (teacher contact is from 7 to 9 am and again after 4 pm). Lessons are held in the proximity of the settlements and are open to the supervision of the parents. The curriculum, taught in the local language, focuses on literacy, numeracy and life skills. In order to be counted as a strategy for reaching Universal Primary Education, a key commitment of ABEK is to encourage children in the NFE programme to join a formal school. The programme is community managed, with teachers (both male and female) recruited from the local school leavers. According to the official figures, by 2007 there were about 6,000 children enrolled in 200 ABEK centres operated by more than 400 NFE teachers paid by the government of Uganda (Chemilo, 2005; Save the Children Uganda, personal communication 2009).

In Kenya, the Alternative Basic Education programme for Turkana (ABET) developed from the co-operation between local political representatives, the Catholic Church, local communities and Oxfam. The programme started in June 2004 with a total enrolment of 880 children in four learning centres. The original administrative board was recently replaced by the Turkana Education For All Committee, which now coordinates all education activities in Turkana. The number of NFE centres has grown to 10 (named after adakar⁴⁸ leaders) with a total of 2,146 children enrolled. Numbers fluctuate according to the season and the availability of food at the centres. Similar to the experience of ABEK in Uganda, pastoral households in Turkana overall don’t seem to have any problem with educating their girl children through the NFE programme: about 70 percent of the children in ABET are girls. Most teachers are school drop-outs or have a low level of education. They are appointed by the community and only receive a small token for their work. They receive a tailored training for working in the centres. The teachers use the national NFE curriculum but work is underway to adapt it to the specific needs of Alternative Basic Education. The communities are extremely supportive but important challenges remain, mainly because of inadequate resources in the face of the huge region, insecurity and the mobility of the households (Oxfam Turkana, personal communication, 2009).

47. By Save the Children UK, <http://www.savethechildren.org.uk/en/951.htm>.

48. A Turkana term meaning a neighborhood association of herding households.

Open And Distance Learning

Key Points

- ODL is largely acknowledged as the most sensible strategy for reaching nomadic children unable to access school-based education.
- Distance Learning (DL) with pastoralists has been afflicted by a tendency to a) use DL a cheap short-cut; and b) use DL within the conceptual box of school-based education.

Current views on ODL seek a deeper integration with the school-based system. The 2002-03 UNESCO review of nomadic education in East Africa argued that ‘the most appropriate approach might be a mixture of open and distance-learning with a short period of residential schooling’ (Carr-Hill and Peart, 2005: 17; cf. also Anis, 2008: 39).

More recently, African specialists in nomadic education have advocated mainstreaming ODL into educational policies. Key developments associated with this strategy should secure the equivalency of certification of ODL graduates with conventional graduates; secure the involvement of fully trained teachers for the necessary face-to-face component of an effective distance learning programme; and encourage ‘blended approaches’ also by conventional education providers (MOEK/UNICEF, 2007: 69).

However, to date this ‘interest-in-principle’ in ODL, for including nomads in universal primary education, struggles to find practical outlets: ‘Although distance education programmes have the potential to reach a large number of people in a cost-effective way, there have been no large scale initiatives to use distance teaching to increase access to basic education or literacy’ (Dennis and Fentiman, 2007: 51).

Experiences with industry-driven optimism for technological magic-bullets in distance education programmes in the past, call for caution (Asmal, 2004). The focus on technology has been associated with a general difficulty to think ‘outside the box’ of the school-based model. Most broadcast basic distance-education programmes have followed the model of Interactive Radio Instruction (IRI), originally designed as a classroom support for poorly resourced school-based education (Helwig et al., 1999; DRG, 2005). IRI programmes require that learners, individually or in groups, engage in verbal and physical activities in response to questions and instructions from radio characters while the programme is on air. In Sub Saharan Africa, IRI has been trialled in Nigeria, Kenya, Ethiopia and Somalia, focusing on English and Maths (Federal Republic of Nigeria, 2003, DRG, 2005).

Over the years, the behaviourist framework of IRI has become more nuanced, as the model evolved towards possible applications outside the school context. There is a growing emphasis on audience research, participation and field-level formative evaluation in order to ensure relevance and adequacy of educational objectives (Helwig et al., 1999).

The Ethiopian Education Development Center, for example, produced a programme with a special curriculum in the Somali language, with the aim of reaching both in- and out-of-school Somali children. The programme included a successful Interactive Radio Instruction component. When the programme was discontinued in Ethiopia, broadcasting continued from Hargeisa, on the other side of the border with Somaliland (Anis, 2008).

Most recently, the Somali Interactive Radio Instruction Program (SIRIP) uses the radio in combination with formal, non-governmental and Quranic schools. Printed materials accompany the programmes. In addition to basic reading and maths in Somali, the programmes contain life skills content such as health, conflict prevention and mediation, and democracy building, and emphasise the education of girls. SIRIP uses IRI trained teachers working in tent schools in refugee camps in the South-Central Region, Somaliland in the northwest and Puntland in the northeast. During the three-year period of this comprehensive educational program, SIRIP is expected to

reach approximately 400,000 children in grades 1 to 5⁴⁹. Although SIRIP is designed for a 'classroom' situation, with teachers conducting pre- and post-broadcast sessions, the programme claims an impact also on children who simply tune-in outside these settings (IDD, 2008).

The country with the longest history of experimenting with radio broadcasting in nomadic education is Nigeria (Iro, 1994; Aderinoye, 2007). A 'Nomadic Fulani Educational Radio Programme' was broadcast in 1981 by Radio Plateau, in order to 'popularise the nomadic education project among the nomads and "to affect their minds towards social change"'. Poor integration between centralised planning and the field level resulted in 'the target audience not knowing when to listen' (Pennells and Ezeomah, 2000: 184). A mobile cinema, set up in Bauchi State a couple of years later to 'mobilise the nomadic population and persuade them of the value of education', also collapsed due to poor planning (ibid.). In 1996, the Nigerian National Commission on Nomadic Education (NCNE) ran a thirteen-week open broadcast series ('For Nomadic Pastoralists in the Homestead') 'to raise awareness among nomads about the importance of education' (ibid.). A few years later, with initial funding from the World Bank, NCNE undertook the design of 'a school-based IRI programme for nomads' (Muhammad, 2007: 19; Junaid, 2006).

Two 'pitfalls' of the Nigerian experience are particularly relevant here. Firstly, the radio education experiments concentrated on 'sensitisation', with the core 'educational' focus being on 'teaching the value of education'; and secondly, the experiments were inadequately planned and funded and remained isolated. They represented truncated efforts at the margin of the school-based system, until, with the IRI programme, they simply became part of it. When the radio was used effectively as a mass communication medium, the focus was on persuasion, with hardly any planned educational content (point 1). When the focus was on educational content, the radio was used to support the teacher in the classroom (according to the IRI format), therefore sidelining its potential as a medium of communication in its own terms and beyond the boundaries of the school model (point 2). Experiments with radio broadcasting in distance education that have avoided these 'pitfalls' are rare. The final section, dedicated to innovation, presents some of these, together with one example of an alternative approach to the issue of curriculum relevance.

Innovation

'We must take education to those children in the bush, even if it took doing it with an air balloon!' (Tony Woods, Lodwar Diocese, Turkana, Kenya).

Key Points

- Children outside the school context can effectively learn through radio.
- Distance education using radio is most effective when the educational content is designed to exploit the communication potential of the medium.
- Effective curriculum localisation is a laborious process only possible at a local level and by local people.

The 'Somalia Distance Education Literacy' programme (SOMDEL) was launched in March 2002 by the Africa Educational Trust (AET) in partnership with the BBC World Service Trust. The aim of the programme (known locally as Macallinka Raddiya: 'Radio Teacher') was to provide basic literacy, numeracy and life skills to children and adults who missed out or were denied access to conventional schooling. Funded by DFID, Comic Relief and the European Commission⁵⁰, the programme was broadcast once a week by the BBC Somali Service, supported with face-to-face local tutorials with trained teachers and with printed materials.

49. Somali Interactive Radio Instruction Program (<http://ies.edc.org/ourwork/project.php?id=3734>).

50. <http://www.somaliangoconsortium.org/docs/AET.pdf>.

SOMDEL was on air for thirty minutes on Thursday evenings at 5.30, after the BBC World Service News. A first evaluation, after fifty radio broadcasts, was very positive (Fentiman, 2003; also Dennis and Fentiman, 2007). About 9,600 out of just over 10,000 registered learners (70 percent females) passed the exam at the end of year one. According to a 2007 estimate, about 43,000 registered learners in Somalia/Somaliland had completed SOMDEL literacy and basic education courses in towns, rural villages and refugee camps⁵¹. In 2007 the programme was renamed 'Literacy for Advocacy, Rights and Skills' (LARS). The BBC Somali Service is still broadcasting it, and in addition the courses have also been made available on CD. A new and important aspect of SOMDEL (and now of LARS) has been the use of radio broadcasting according to the principles of entertainment education ('edutainment', see above in the main text), in order to fully exploit the communication potential of the medium (Fentiman, 2003: 5).

The same year that SOMDEL was aired for the first time, the United Nations launched a major 'edutainment' project, the Kenya based prime-time soap opera Heart & Soul, which was broadcast via television (in English, in twelve African countries) and radio (in Kiswahili in Kenya and Tanzania and in English in Uganda). The storyline of Heart & Soul is constructed around two fictional families, one rich and one poor, and designed to explore five broad social and development themes: HIV/AIDS, environment and natural disaster management, governance and human rights, poverty reduction, and gender issues⁵². The Heart & Soul project is an example of an educational programme that, although centralised and top-down, exploits distance education resources in ways that are completely outside the school model, chiefly by developing a communication strategy and building on it.

Box 24. Heart & Soul

A central component of this production process is capacity building and development of creative and production talent in Kenya. The development of the project's pilot phase followed the staging of a 2-day workshop in early February 2000 attended by Information and Communication officers and representatives of the UN Agencies in Kenya. Other participants included marketing, research, creative and production consultants drawn from Kenya's media industry. In July 2000, a workshop in Nairobi was held for 16 Kenyan writers, identified from 55 applicants across Kenya. The purpose of this workshop was to lay the programme's creative foundations and select a story line and scripting team for the pilot series. These materials were then tested on rural and urban audiences in Kenya. Acting and directing capacity-building workshops were conducted in August 2001 for 25 Kenyan actors and 6 Kenyan directors. Production of the pilot series commenced in April 2002 and involved a cast of 31 Kenyan actors and 80 Kenyan-based crew and production management personnel. Students from the Mohammed Amin Foundation, a Kenyan film and television production training school, contributed to the production process.

Source: The Communication Initiative Network, 2005 (www.comminit.com).

From the opposite 'local' perspective of community radio, the educational potential of communication is also at the centre of 'CREW', a unique initiative launched in 1996 by 'Bush Radio' in Cape Town, South Africa. CREW (Children's Radio Education Workshop) started as an experimental project with the aim of giving young people a voice in media and to create an opportunity for them to understand how the media operate. Six grade ten students were recruited from a Cape Town high school and trained to conduct interviews, use field-recorders, edit on reel-to-reel machines, and operate the on-air studio. The output of this training was a 30 minute programme on a Thursday, soon expanded to a 1 hour Saturday evening slot. In 2000 this successful experiment was formalised with the creation of the Children's Radio Education Workshop (CREW). By 2007, CREW had developed a structured training and evaluation programme and involved about fifty children between 6 and 18 years of age⁵³.

51. <http://www.developmentratings.com/uploads/reports/AET%20Report.pdf>.

52. The Communication Initiative Network (<http://www.comminit.com/en/node/119110/36>).

53. CREW, The Children Radio Education Workshop (<http://www.comminit.com/en/node/12885/38>).

Box 25. Education & communication: the CREW project

'When Bush Radio started with its CREW project, many radio stations did not want children in their studios - their argument was that they're going to break the equipment and would be difficult to manage. We've had fewer breakages with the children than with the adults in terms of headphones for example [...] They use the radio to draw pictures in the minds of their listeners through storytelling and drama [...] talk about their ambitions, their hopes, their fears ...and how to face them' (Louw, 2007: 1, 3).

In the case of CREW, the emphasis is on participation at the source, with the educational value lying in the hands-on experience of designing and running the radio programme itself (which could well be a distance education programme).

This 'ownership of the source' is also at the core of one of the most interesting attempts to generate a local component for the formal education curriculum: the Rendille Camel Management textbook. In 2003, Rendille herders in northern Kenya took advantage of their interaction with a German researcher who was living with them to study their animal production strategies, in order to develop a textbook on Rendille camel management. The elders broached the subject with more or less these words: 'You know how good we are at keeping camels. When we send our children to school they are taught how to farm coffee, but there is no coffee around here. As we make our living from camels, we would prefer our children in school to learn about camel management rather than coffee farming' (Brigitte Kaufmann, personal communication, 2008). The issue was taken seriously and one year later, following a sophisticated community consultation process, a group of Rendille elders had authored what is probably the first school textbook in Kirendille, on Rendille camel management, now in print by a German publisher (Namunai et al., 2008).

Box 26. A Rendille Camel-management textbook

The textbook was developed through a methodology that allowed Rendille elders to determine its content in detail, without being influenced by the editors. The method also enabled verification, additions and corrections by the Rendille elders themselves. The elders that contributed to the textbook assume responsibility for the information provided through authorship for the respective sections.

The elders of most of the 13 Rendille clans and from the 3 main settlement areas (Korr, Kargi and Ngurunit) were involved in the choice of the topics to be dealt with in the book. Group discussions were conducted in 17 manyattas. The elders were asked in which topics or areas of camel husbandry management their children should have knowledge. Usually five to ten elders per manyatta attended the meeting (about twenty percent of the elders). The names of the participants were noted. Consistently throughout the process, all discussions were systematically captured on a recording device as well as through note taking. The audio records were then transcribed word for word by the editors. This process resulted in a list of topics and sub-topics that became the backbone of the book.

Two or three elders from each manyatta volunteered to provide the information for a comprehensive discussion of each topic. One of the key informants acted as the lead speaker and the others added information or challenged. Altogether 40 sessions were held, each 1.5 - 2.5 hours long. About 5% of the initially named topics could not be treated due to lack of time. Again, all discussions were recorded and transcribed/translated word for word into English. The text generated through this work provided the first draft for the book.

A Kirendille version of this text was then read to elders who had not been involved in its production and belonged to different clans and locations. This phase (22 sessions in March/April 2004) allowed for correction and integration of additional information, leading to the English second draft.

This text was only lightly edited to remove repetitions, while maintaining the characteristic style of the spoken language. Finally, the English draft was translated into Kirendille by a team of translators (Thomas Amiyo, Mohammed Arbelle and Simon Karaba) led by the trained translator Fabiano Wambile.

The complete Rendille text was read to selected elders in October/November 2004, to check for correct translation. Corrections of the Rendille language were entered directly into the text.

(Adapted from an aide memoire by Brigitte Kaufmann, June 2009).

Conclusion

This annex has looked at nomadic education in Sub Saharan Africa, with the aim of highlighting those aspects of most strategic relevance. We have touched upon the most hotly debated issues and the most common solutions. Finally we have presented a few initiatives that, although not representing ready-made solutions, in our view provide useful innovative insights for a new education strategy yet to be developed.

The published and grey literature on nomadic education produced over the last ten years indicates a substantial wave of activity. The institutional visibility of nomads has grown and so has the awareness that including them in universal primary education is a task fundamentally beyond the reach of conventional schooling.

Despite this growing awareness, thinking and acting 'outside the box' of the conventional schooling system has proved difficult. Issues of curriculum relevance and specialist teacher training are typically considered from the perspective of the planners. Alternative solutions (like mobile schools, alternative basic education and interactive radio instruction programmes) are introduced at the periphery of the school system, on an ad hoc basis and in an ancillary position. The mode of delivery may be different but the fundamental understanding of teaching and learning behind programme design remains that of the classroom context. So far, this approach has taken many African countries substantially closer to achieving the goal of universal primary education, but not close enough to fully including nomads and pastoralists. Specialists of nomadic education in their respective countries have started to realise that the solution lies elsewhere. At the same time, it is important to avoid the trap of a parallel and subordinated education system. A few steps in this direction have already been made by scattered and atypical ODL programmes, but it is just the beginning.

The challenge now is to overcome the all-pervasive framework of the school model, from the way we think about the education system, to the ways programmes are designed and performance evaluated.



René Magritte, *The Treachery of Images*, 1929–29



From the cover of
MÉDIA/UNICEF 2003. *L'éducation de base en milieu nomade*, Niamey.

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Mobile Pastoralists and Education: Strategic Options

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Mobile Pastoralists and Education:

Strategic Options

Saverio Krätli and Caroline Dyer

Educating nomadic peoples in the context of rapid global socio-economic change is a challenge of massive proportions. This paper sets out to address this challenge in two ways. Firstly, it maps out the conceptual terrain, analysing the key debates in relation to terms that are often misleadingly used as if they were interchangeable – education, schooling, and learning. Greater clarity on terminology, and its underlying assumptions, shows how the educational marginalisation of nomadic groups has been created, and sustained. Secondly, building on this analysis, the paper reviews successful and innovative approaches to education provision around the world that can inform and inspire new approaches to nomadic education. As old assumptions are challenged and corrected, obstacles that previously seemed insurmountable can be overcome. This paper shows that successful policy is possible, and that progress is being made – but only when both the conceptual and the practical aspects of educational provision for nomads are considered at the same time.

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