

# Reaching Pastoralists with Formal Education A Distance-Learning Strategy for Kenya

By David Siele, Jeremy Swift, and Saverio Krätli

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## Reaching Pastoralists with Formal Education A Distance-Learning Strategy for Kenya

David Siele, Jeremy Swift, Saverio Krätli<sup>1</sup>

## Abstract

Demand for education among pastoralists, including children actively involved in production, is rapidly increasing. Education is seen by impoverished households as a way out of poverty, and by the households actively involved in pastoral production as a way to support their production system in an increasingly globalised world.

Education systems are failing to respond to this shift in demand, and remain oriented towards 'educating pastoral children out of pastoralism.' The model used everywhere is that of a teacher in front of a class, a model that effectively excludes the children directly involved in pastoral production. Where pastoral families adapt to this limited service, it is normally by 'giving' some children for formal education and keeping others to run the family business. In this way, productive households have to make a damaging trade-off between accessing formal education (through a school system that diverts children away from the pastoral economy) and maintaining the family business (through the specialist work and learning that takes place within the household and camp). Such learning is essential if the child is to acquire the knowledge about and membership of the complex social networks of nomad life which is a condition of success as an adult producer.

Educational delivery systems tried so far – boarding schools, mobile schools, special uses of sedentary schools – have not successfully resolved this trade-off. Experiments are currently under way in Kenya to develop a distance learning system (using a combination of radio programmes, mobile tutors, and audio & print materials), aimed at broadcasting a full primary curriculum including literacy to individual children and their families directly at the camps. The aim is to enable children to acquire a modern education and thus to become more effective producers, as well as to compete with other Kenyan children if necessary in the world outside pastoralism.

## 1. Introduction: reaching the hardest-to-reach with formal education

Demand for education is on the rise among pastoralists. Not only among those who have been impoverished and sedentarised, but also children from households actively involved in production, which manage huge dryland areas and supply most of the domestic and export livestock market in their countries. Demand for education comes from several sources: education is seen as a way of supporting the production system, as a way out of poverty, as a way to reduce conflict, as a source of economic diversification, as an insurance against drought and in the longer run as an adaptation to climate change.

<sup>&</sup>lt;sup>1</sup> David Siele is the Director of Human Capital development in the Ministry for Northen Kenya and Other Arid Lands, responsible among other things for the development of a new education strategy for pastoralists. Jeremy Swift and Saverio Kratli were the principal authors of the distance learning strategy commissioned by this Ministry and adopted by the government of Kenya in 2010.

About one million children are out of school in Kenya. Almost all of these are either in the slums or in the arid and semi-arid areas which are predominantly occupied by pastoralists. The absence of schooling affects girls in particular. National net enrolment rate at primary level in Kenya in 2009 was 94.5 percent for boys and 90 percent for girls. In Wajir district, which is predominantly pastoral, it was 31 percent for boys and 20 percent for girls.<sup>2</sup> Wajir is one of the districts where distance learning for pastoralists will be piloted.

African pastoralists are increasingly exposed to globalisation and world economic trends. New technologies are becoming available. Rapid urbanisation, accompanied by increasing demand from urban populations for milk and meat, is changing the economic geography of the dryland areas. If pastoralists can adapt their production system to this new challenge – and everything we know about pastoralists suggests they will adapt if the legal and economic framework within which they operate is supportive – the future of pastoralism is brighter than many people suggest. A crucial part of this adaptation is in the education system, and in the ability of the education system provided by the government to adapt to these new challenges.

But education services to pastoralists are failing to respond to the demand, and are still generally oriented towards educating pastoral children 'out of pastoralism'. While there is an important need to equip those who leave pastoralism to find employment in the wider economy, there is an equally urgent need for those children who are active pastoralists and will be responsible for tomorrow's animal production in the drylands, to have access to the same education as others. In both cases the aim must be to provide a level playing field for pastoralists in economic development.

Services operate on the assumption that education necessarily requires a class in front of a teacher – and that this arrangement provides the service of education. However, mobile pastoralist families find it exceptionally difficult to take advantage of an educational service locked into the classroom model. Those households that want to secure access to education, for at least some of their children, have to adjust to the service and face unfavourable trade-offs. By 'giving' some children to school, productive households typically compromise on productivity by weakening both the pastoral production team, and the quality of strategic mobility. Therefore the dominant strategy of formal educational provision routinely (if unwillingly) selects out a predictable and identifiable proportion of pastoral children: those actively involved in production. The far-reaching economic and political consequences of this discrimination do not need spelling out.

This paper presents the strategy recently adopted by the Kenya government to avoid these dangers. The strategy, the result of a partnership between the Ministry of State for the Development of Northern Kenya and Other Arid Lands and the Ministry of Education, working with the Education for Nomads group of researchers, is based on a comprehensive review of the options and possibilities for nomadic education in Kenya and elsewhere and of experiments within Kenya itself.<sup>3</sup>

# 2. Nomadic education in Kenya

<sup>&</sup>lt;sup>2</sup> Education Statistics Booklet, Ministry of Education, 2008; EFA Global Monitoring report 2009, Unesco 2010.

<sup>&</sup>lt;sup>3</sup> The following is a synthesis of the official strategy contained in: MDNKOAL 2010. *Getting to the Hardest to Reach: A strategy to provide education to nomadic communities in Kenya through distance learning*, Minister of State for Development of Northern Kenya and Other Arid Lands (Office of the Prime Minister) and Education for Nomads programme, Nairobi. http://pubs.iied.org/G02742.html

Kenya, like other countries with significant pastoral populations, faces a problem of poor attendance and graduation rates of nomadic children in school. The issue is not that pastoralists refuse a modern system of learning. Rather it is the result of the damaging trade-off that nomadic parents and children have to make between children acquiring formal schooling through the school system, and the fundamental, informal education that takes place within the household and the camp about their own cultural, social and economic world. Such informal learning, available to children as members of the complex social networks of nomad life, is crucial to a child's development, and membership of these networks is a condition of success as an adult producer <sup>4</sup>

Current educational practice confronts nomads with an unfavourable choice between these two types of learning: formal schooling within the national system or informal education in the camps. Formal schooling is useful for many purposes but separates children in school from their family, their wider social environment and their cultural background, and is acquired at the cost of the informal learning acquired in households and camps. Children who refuse school and stay in the camps acquire these social and economic skills, but do not acquire formal learning. Crucial challenges in the provision of education to pastoralists follow from resistance to this forced separation more than from a refusal of formal education itself.<sup>5</sup>

Education programmes for nomads tend to be an extension of those designed for sedentary people, and are based on a simple adaptation of sedentary models to some aspects of nomadic life. This approach has a poor record worldwide.

The aim of the strategy adopted in 2010 by the Kenya government is to recognise the unique nature of nomad education and to propose ways of reconciling the fundamental choices nomadic children face.<sup>6</sup> The problem is clearly recognised by the Kenya government and by international agencies working in this field. 'Education for all is more likely to be achieved if boys and girls are not forced to choose between herding and schooling' writes UNICEF.<sup>7</sup> The Kenyan Ministry of Education's nomadic education policy framework states: 'nomadic pastoralists require flexible education delivery modes that take into account their children's work at home.'<sup>8</sup>

The strategy addresses the fundamental challenge identified above: to extend good quality formal education to all children living within nomadic livelihood systems or directly involved in pastoral production, without undermining the children's economic and social position in those livelihood systems.

## 3. Policies, goals and objectives

<sup>&</sup>lt;sup>4</sup> To be a successful economic operator in a pastoral economy requires among others (i) a detailed knowledge of the technical aspects of livestock husbandry – for example a sophisticated knowledge of grasses, shrubs and animals, and (ii) membership of social networks which enable the capture of economies of scale in production and provide the basis of risk management. These things are a critical part of education but are not taught in school.

 <sup>&</sup>lt;sup>5</sup> Kratli, S., C. Dyer, 2009, *Mobile Pastoralists and Education: Strategic Options*. Education for Nomads, Working Paper 1. London: International Institute for Environment and Development.
<sup>6</sup> See MDNKOAL, 2010, *A Strategy to Provide Education to Nomadic Communities in Kenya though Distance Learning*. See also MDNKOAL, 2010b, *Manual: Nomadic Radio Education Trials*.
<sup>7</sup> UNICEF, 2007, *Nomadic Education in the Islamic Republic of Iran*. Eastern and Southern Africa

<sup>&</sup>lt;sup>7</sup> UNICEF, 2007, *Nomadic Education in the Islamic Republic of Iran*. Eastern and Southern Africa Regional Office (ESARO)

<sup>&</sup>lt;sup>8</sup> Ministry of Education, 2008, *Policy Framework* Paras 1.2.10-1.2.11.

Kenya Vision 2030 and the national policy framework on education set out an ambitious goal: education for all by 2015.<sup>9</sup> Although pastoralists are scarcely mentioned in the strategy, this target applies to them as to others.

This is not a trivial objective. It is estimated that some 300,000 nomadic children are currently out of school in North East Province alone. According to the national policy framework, every one of these children is entitled to free quality basic education. The policy framework outlines the main actions needed to achieve this. It supports setting up a variety of local alternatives to formal schooling, adapted to the local ecology. New technologies will be welcomed. It is agreed that it is essential to create a relationship between non-formal and formal education systems, so pupils can move between the two. Timetabling and children's movements should reflect pastoral reality and remain flexible.<sup>10</sup>

Pastoralists no longer resist the idea of formal education, as they commonly did fifteen or twenty years ago. Children and adults now fully understand the importance of education and are enthusiastic about learning.<sup>11</sup> The main obstacle now is effective access to education, as pastoralists, in a system that, despite improvements, remains anchored to the classroom model of teaching. This model is not serving the interests of children and adults involved in pastoral production. A new strategy is needed.

# 4. Nomadic pastoralists and existing educational delivery mechanisms

Nomadic pastoralists are a majority or significant minority in all arid and semi-arid lands (ASAL) districts, and they occupy a large part in the national territory. There are eight main pastoralist language groups and the first language of around 2.1 million people belongs to one of these groups.<sup>12</sup>

On the ground, Kenya has for some years experimented with different educational delivery systems to reach the children in these nomadic groups. These lessons of these experiments provide important information for the design of a new strategy, but do not provide in themselves provide the answer as to how to do nomadic education.

## 4.1 Boarding schools

Boarding schools are an option for a small minority of nomadic children. Some active pastoralists prefer boarding schools if they are in a position to leave their children in school. Girls-only boarding schools have increased the enrolment of girls in their catchment areas. On the other hand boarding schools still require the separation of children in education from the rest of the family and thus cannot serve children who work in the household. They are also not appropriate for children under the age of ten. Boarding schools are effective in socialising nomadic children away from their own communities, something pastoral parents fear.

4.2 Mobile schools

<sup>&</sup>lt;sup>9</sup> Government of Kenya, 2007, *Kenya Vision 2030* and Government of Kenya, 2005, *A Policy Framework for Education, Training and Research.* Sessional Paper No. 1 of 2005. Nairobi: Ministry of Education, Science and Technology, p. 30

<sup>&</sup>lt;sup>10</sup> Ministry of Education, 2008a, *Policy Framework*.

<sup>&</sup>lt;sup>11</sup> SOS Sahel, 2009, Results of future scenario planning with nomads in Kenya. Forthcoming.

<sup>&</sup>lt;sup>12</sup> Lewis M.P. (ed.) 2009. *Ethnologue: Languages of the World*, Sixteenth edition, SIL International, Dallas, Tex.

Around fifty pilot mobile schools are now in operation in six arid districts.<sup>13</sup> Teachers are attached to a nomadic family or group of families. After three years in the mobile school children are supposed to enrol in conventional boarding schools.<sup>14</sup> Often adults as well as children attend the schools.

The advantage of mobile schools is that children do not have to leave home, and can continue their household work. The disadvantage is that mobile schools are difficult to staff, manage and monitor. Households can scatter at any time, causing children to move in and out of the system with negative consequences for a classroom-model of teaching based on continuity of attendance. In practice, most mobile schools do not serve the more mobile households.

# 4.3 Sedentary schools for mobile populations

Alternative Basic Education for Turkana (ABET) has set up learning centres at semipermanent villages near important roads. In Samburu district, shepherd schools (lchekuti) are evening classes in conventional schools for village children who spend the day herding. Mainly girls attend.<sup>15</sup> In Marsabit the shepherd schools are evening classes in mobile schools.

## 4.4 Content and focus of existing education programmes for nomads

Boarding and mobile schools, and the use of fixed schools for nomadic classes, have not provided the desired outcome: ways to reach nomadic pastoralists so that all pastoral children get access to the education in line with Kenya's international obligations and domestic targets. Despite substantial investment in infrastructure and teachers, as cited above, only 31 percent of pastoral boys in Wajir are enrolled. This is a crisis, and requires new approaches.

Schooling options which require a teacher in front of a class can only cater for a small proportion of the children in pastoral households, typically those not directly involved in production. But the failure of conventional models to deliver education to pastoralists is only part of the problem. A larger and more complex problem is the nature of the education on offer itself.

For nomads principally involved in animal production in the drylands, formal school-based education has three serious consequences:<sup>16</sup>

- The household has to be split in a way that makes school attendance easier; this may make running a pastoral enterprise more difficult;
- Herd management and livestock mobility patterns have to be modified in ways which reduce their productivity and the reliability of the production system;
- Some, but not all, the children in the family will be enrolled in school, creating at an early age a separation between educated children whose best hope in life is outside the pastoral system (and who indeed often lack the skills necessary to be effective producers in a pastoral economy), and other children whose skill is in animal production and have little experience of the world outside pastoralism.

There is thus a problem – the incompatibility between most models of classroom schooling and socialisation into nomadic society and culture - at the heart of efforts to carry formal education to pastoralists through the school model.

This problem is compounded by material shortcomings in pastoral schools themselves: especially a shortage of qualified teachers from pastoral communities, with the necessary

<sup>&</sup>lt;sup>13</sup> Wajir, Garissa, Moyale, Ijara, Turkana and Samburu.

<sup>&</sup>lt;sup>14</sup> Ministry of Education, 2008, *Report on the Policy Framework for Nomadic Education in Kenya*. Nairobi

<sup>&</sup>lt;sup>15</sup> Ministry of Education, 2008, op. cit

<sup>&</sup>lt;sup>16</sup> Kratli and Dyer, 2009, op cit

command of local language and understanding of pastoral livelihoods, as well as a lack of appropriate teaching and learning materials. There is little monitoring or evaluation. Ultimately, education programmes using the classroom model of teaching tend to select children who are or can be disengaged from pastoralism.

# 5. Distance learning

A Distance Learning (DL) approach provides ways to by-pass many of the problems discussed in the previous section. In distance learning systems a significant proportion of the teaching is conducted without face-to-face contact, through a technical medium (for a long time books, now also radio). By operating outside the classroom model, DL can be more flexible and better able to adapt to changing circumstances, while maintaining standards as high as those in a conventional school system. The content can be better adapted to the significant differences in livelihood between urban and settled farming areas on the one hand, and the arid and semi arid pastoral areas on the other.

# 5.1 Radio in a distance learning system

A distance learning system designed for nomadic education in Kenya would integrate innovative uses of radio with the relevant parts of the existing school system and a new distance learning system within the new framework put in place by the Ministry of Education and the Ministry of Northern Kenya jointly through the proposed new National Commission on Nomadic Education in Kenya (NACONEK).

Such a framework at present disposes of two main potential radio broadcasting networks for education: the Kenya Broadcasting Corporation (KBC) system, with near-universal national coverage, and community radio, with uneven but widespread coverage. The Afristar satellite network may become important in the future, as may the cell phone network.

## 5.2 Kenya Broadcasting Corporation

KBC has substantial experience in distance education by radio through an Interactive Radio Instruction approach (IRI) requiring a teacher in front of a class (as opposed to addressing students individually). KBC has both technical and methodological capacity, including broadcasting in most of the ASAL languages. However KBC does not have experience of the sort of programme proposed in the current strategy, which depends on involving broadcasting to individual students without an intermediary.

# 5.3 Community radio model

A community radio approach would require one station per district (with repeaters if necessary). In the longer term, the digital migration will make available a large number of new channels and frequency scarcity will no longer be a problem. In all cases, the frequency modulated (FM) spectrum is currently almost completely unused throughout the ASALs. The local nature of these radio stations will allow for easy access by students and make it relatively easy for the DL team to visit students in order to record materials for community broadcasts.

## 5.4 Reception technology

Hitherto DL experience with children in Kenya has generally used a classroom model of teaching, with group listening and a teacher operating the audio device (radio, CD player, or tape recorder). Providing a sustainable educational service to nomadic children will require the capacity to reach students individually and independently from one another, rather than as a class.

Students - mainly children and adults in non-literate pastoral households - will have direct access to the audio units of the DL programme together with printed materials and tutoring

from visiting teachers. They will need to access the right frequency, listen to the full range of DL broadcasting and play back individual audio units at will. The DL programme requires low-cost devices with a playback function, easy to use and to power, and capable of storing and retrieving audio units.

# 5.5 Cell-phone networks

In a DL system for nomads, communication between the field components of the programme as well as with monitoring and evaluation (M&E) and coordination and management staff will be essential. Visiting teachers (see para 5.1 (ii) below) will maintain regular communication with the radio station and with the supervising body, as well as with individual students. Cell phones could meet this need in part. As network coverage and cellphone usage expand in the north, cell-phones could play a more direct role in education provision.

# 6. Programme overview

A DL programme for Kenyan pastoralists might look like the following:

## 6.1 Main actors

Key actors in a DL system for pastoral education would be:

## (i) Students

Children and adults unable to use the present school system

Nomadic students are likely to be widely scattered in remote regions, mobile, and dynamic, with the size and composition of the group changing according to season, security, environmental conditions. Students in this group are likely to be: engaged in production, and therefore only partly free to attend school; unpredictably mobile; scattered over vast remote regions, and living in harsh rural conditions; illiterate and living within a largely illiterate community.

## (ii) Mobile teachers and cells

A DL programme has to provide academic support, supervision and tutorial activities, designed to provide face-to-face contact, supervision and support for both children and adults. This will be achieved through a cell system of supervision. Each area where students are present for part of the year will be divided into cells: mobile households will come under the supervision of the tutor of whatever cell they happen to be in, and change tutor when they move to a new cell.

Tutors/teachers will:

- live in villages or trading centres, within a distance of 10-30 km from their students, with responsibility for all students residing in or moving through the designated cell;
- have a means of transport;
- visit their students or be visited by them between once a week and once a month for intensive face-to-face contact work;
- have access to a mobile phone.

The programme will design a system of district/provincial supervision, support and quality control. The creation of a special cadre of travelling education inspectors will be experimented.

## (iii) DL team at the community radio station

A team will be based at the community radio station, operating the DL radio system on the model of community radios and, whenever possible, as a DL unit attached to an existing

community radio). This team will manage the broadcasting of DL units, They will also design and produce side broadcasts to enhance local ownership and keep the DL programme alive and motivating. Side broadcasts will include relevant news and discussions. In order to encourage community participation and ownership, the location of the radio station will need to be accessible by both teachers and students, probably in most cases at the district centre.

## (iv) DL team central level in Nairobi

Design modules and broadcasts, curriculum. pre-recorded at the district or Nairobi level, covering an adapted version of the national curriculum.

#### 6.2 Enrolment and familiarisation

At enrolment, students and adult members of their household are invited to attend a one week intensive induction course, held in a boarding school or place with boarding facilities, or even at large gatherings directly in the bush. During this course, students meet their DL tutors and are introduced to the programme: they learn how to use the receiving/playback device, how to communicate with the tutors, how to use the progressive testing system and the periodical exams. The timing of induction courses will be decided in the light of seasonal demands for children's pastoral work-load. Each student is given a receiving/playback device loaded with the first memory card.

#### 6.3 Initial broadcasts

The broadcast cycle will start with a preliminary course (about 30 units over 4 weeks). The course will provide essential information and some basic functional literacy and numeracy for adults and children in the local language, designed to enable students access and use the main DL programme. Each audio unit will be accompanied by one page of printed material. This course is meant to generate interest in the DL programme and bring in children and adults who have yet not managed to enrol. Efforts will be made to involve entire households in the learning process.

After the first four weeks of the preliminary course, the DL programme will start to broadcast subject-modules (sets of audio units designed to teach the subject-content of the formal curriculum: literacy, numeracy, science, but also spoken English taught through the local language) also in the local language. As students learn in their own space and their own time (thus by-passing one of the main constraints of classroom settings), most modules can be designed for delivery as stand-alone.

#### 6.4 Broadcasting schedule

The broadcast units should be aired more than once in order to give as many people as possible a chance to listen to them. Each unit should be repeated three times a day: morning, afternoon, and evening. Students' daily listening time is limited. The preliminary course should be aired on a dedicated frequency, three times a day, non-stop all year round.

# 6.5 Language

Following present practice, subject-modules will be in the local language for the first twothree years of the curriculum. The structure of the DL programme will however allow to offer, from year 1, a module of spoken English designed for non-literate students.

#### 7. Programme operation and management

#### 7.1 Institutional reform

A National Commission on Nomadic Education in Kenya (NACONEK) will be created. Its purpose will be to formulate policies and guidelines, to mobilise funds, to create mechanisms to coordinate and evaluate the activities of agencies in the field of education, to ensure that nomadic education reaches across district boundaries, to establish linkages with other Ministries, to establish standards and skills to be attained in nomadic schools, to prepare statistics, and to channel external funds to nomadic schools.<sup>17</sup>

# 7.2 Tracking student progress

Procedures will be developed to keep records of student progress in order to enable students to transfer back and forth between the DL programme and the conventional school system and between different areas of DL. For this purpose the DL programme will develop a system of 'point-based courses', including equivalence with conventional schools. Students will be able to accumulate points that will give them access to an equivalent grade in a conventional school. Each module will as far as possible be stand-alone and individually assessed as part of a continuous assessment system similar to that used in conventional schools, probably carried out by a visiting tutor.

# 7.3 Teachers

Teachers destined for jobs in the ASALs will receive additional training covering ASALs livelihoods, especially pastoralism and the practical problems of living in the drylands. Teachers will be selected who speak the same local language as their pupils; where possible they should come from a pastoral background. In-service teacher-training courses for the DL teachers will be the responsibility of University of Nairobi and the Kenya Institute of Education (KIE) in collaboration with NACONEK.

# 8. Programme content

A DL education system does not mean that nomads should be provided with a second-class education or one substantially different from that available in the rest of Kenya. On the contrary the system should equip nomadic children to compete with children from elsewhere in Kenya throughout the school system and later in life.

## 8.1 Curriculum

Kenya has a national syllabus for primary education which the KIE is mandated to develop.<sup>18</sup> The DL programme will work with the KIE in analysing the existing national syllabus and in developing a programme based on the national curriculum and leading to the Kenya Certificate of Primary Education (KCPE). This would require minor modifications to replace a small amount of existing information with material based on a fuller understanding of pastoral ways of life.

An ASALs curriculum development team will be set up jointly with KIE to research and where necessary adapt curricula to be used in radio broadcasts for nomadic education programmes.

## 8.2 Literacy

Literacy is currently taught as a part of the primary curriculum. The DL programme will experiment with intensive teaching of basic literacy and numeracy in local languages, for both children and adults, through radio broadcasting in combination with printed materials. Mobile teachers will provide support for these intensive courses, particularly in the initial phase, but the aim should be to make literacy courses stand on their own in the future, once a critical mass of printed materials has been distributed across the communities and a critical number of people have become literate and can therefore provide help within the family.

8.3 Exams

<sup>&</sup>lt;sup>17</sup> Ministry of Education, 2008a, Policy Framework op cit pp 13, 14

<sup>&</sup>lt;sup>18</sup> Kenya Institute of Education, 2002, Primary Education Syllabus. 2 vols. Ministry of Education.

Nomad children in Kenya are subject to the Kenya National Exams Council independent exams system based on standards set by KIE.

Nomadic children at primary level will be aiming at the KCPE, as a marker of their initial achievement and as the condition of access to secondary education. The DL programme should offer intermediate certificates (for example one per module or small coherent set of modules). The uncertainties of pastoral life require than educational system should be flexible. The students must be given the possibility to stop at any time without losing out on their achievements up to that point, and the possibility to pick up from where they left off if they have the opportunity to go back in education.

#### 8.4 *Learning materials*

Newly literate adults and children need relevant and good quality printed materials, in addition to the foundation materials in support to the radio programmes, to be easily available. In the past, teaching materials for pastoralists have at times been inaccurate, out of date, and sometimes demeaning to the pastoralists. Learning materials for the DL system will be both audio and printed. Responsibility for their preparation will be held by a curriculum development unit set up under the supervision of NACONEK in the KIE.

#### 8.5 School culture

Historical evidence suggests that nomadic schooling has worked well where the local administrative culture was sympathetic to and supportive of pastoralism as a livelihood system (e.g. Mongolia, Iran), and has not worked well where it was not (everywhere else).

It is essential for the entire nomadic education culture to be well-informed and sympathetic to nomadic livelihood systems and pastoral societies. DL radio programmes must help do this. Ways include encouraging a dialogue around radio broadcasts, with phone-ins, 'question-time' and debates. Parental links to the education process and their participation in management decisions are essential.

## 8.6 Monitoring and evaluation

Because of its experimental nature, it will be essential to monitor progress of the DL programme and evaluate it regularly. The success of the radio strategy will depend in large part on three factors: its reach (how many communities and people it reaches); its quality (how accurate and useful the information is); and the quality of management, supervision and support by the educational system as a whole. Reach, quantity and quality indicators will be developed and monitored from the start. Indicators should include impacts, outcomes, and costs, and should not be limited to conventional numerical indicators but include qualitative indicators.

## 9. Piloting a new system

Individual components of the DL system, on their own and in combination with other components, need to be field tested and evaluated as to their potential contribution. Two ASALs districts will be selected for pilot activities.

The pilots will take the form of a thin slice across the entire radio broadcast education system: rented or borrowed broadcasting and receiving/storage capability, trial radio programmes covering key subjects including induction and enrolment, experiments with adapting curricula where necessary, exams, monitoring and evaluation. Pilot trials will be monitored and evaluated in detail and the lessons made widely available.

Work on the new system is under way. Scenario planning exercises have been carried out in Maasailand to identify hopes and fears of pastoral families about education. A steering

committee which brings together the main actors – KIE, KNEC, Ministry of Education, Ministry for the Development of Northern Kenya and Other Arid Lands, the universities and the Teachers Service Commission (TSC) is being set up so all the key protagonists are on board. The pilot phase will start some time soon with work on curriculum adaptation. The pilot phase will be managed by the steering committee, with the MDNKOAL providing the impetus.

## **10.** Conclusions

For many years, policies aiming at enhancing the availability and quality of school-based education in pastoral areas have not succeeded. Education has not been provided for all – even most – children in mobile pastoralist households. It is critical to recognise at this juncture that continuing with a strategy that can at best be only partially effective will inevitably endanger the national commitment to Education For All. It will prevent Kenya from ensuring the fundamental human right to education of pastoral children

We take the view that it is the dominance of the school-based system itself that has largely been responsible for the historically poor record of ensuring that pastoralists can access good quality education. Both the structure and the culture of the school-based system have so far offered education as an alternative to pastoralism and have been locked into the 'classroom' model of teaching. For children in pastoralism, school-based provision raises an unnecessary barrier to learning.

The message coming loud and clear from pastoralists themselves is a demand for a formal education – in the sense of equal status with school education – capable of complementing pastoralism, adding further opportunities to the pastoral livelihood, rather than trying to replace it altogether or undermining it by virtue of its fundamental requirements. At the moment there is no service supply to match this kind of demand.

This needs to change. Effective strategies for educational inclusion require better informed understanding of the role mobility plays in pastoral production, and highlighted the unfavourable trade-offs pastoralists experience when, in seeking to acquire 'modern' education, their only option is a school-based model of provision that enforces compromises with pastoral production and closes livelihood opportunities within pastoralism. In the past, and in some places still, the lack of adequate appreciation of these matters has failed to validate learner mobility as an essential component of pastoral productivity.

Blaming pastoralists for their own exclusion has distracted analysts from realising that it is the system of educational provision that is, by its very nature, selecting out would-be students in pastoralism. Rare plans for the inclusion of pastoralists, rooted in a conceptual misunderstanding of pastoralism and tacked onto the classroom model of teaching, have largely led to failure. The challenge of providing education to mobile pastoralists cannot be dealt with in this way. Dedicated frameworks are needed to provide viable alternatives. Such innovation might be seen as both risky, and costly. In relation to the EFA pledge, we would argue that it is less risky and less costly to innovate, for example in the ways that Kenya proposes, than to continue the incremental expansion of a system that actively selects out those who should be its main concern: the producers.