Multiple mobilities in a mobile population: risks and benefits for Malian Tuareg children

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1. The issues

Throughout the twentieth century in Africa colonial administrators, followed by independent governments, vigorously attempted to sedentarise pastoral nomads through a wide range of policies. The rationale behind this mobility reduction was couched in terms of socio-economic development and provision of services such as education and health-care, although usually is clear that there was a parallel agenda of control of movement and concomitant control of people. In reality the evidence for improvements in people's well-being and welfare is debateable (Brainard 1991, Campbell et al 1999, Fratkin et al. 1999, Randall & Giuffrida in press) although the transformation of the lives of most previously nomadic populations is very evident in recent years and this is particularly the case for children. Although one might imagine that sedentarisation has reduced children's mobility – this is only true to an extent and in terms of just one dimension of mobility - and both nomadic and sedentarised children from populations with nomadic traditions may remain highly mobile with an enormous diversity in types and motives for mobility. This mobility has implications both for our ability to study these populations and understand their demographic dynamics and for the actual welfare of the children concerned . In the past, mobility was the unequivocal key to survival and economic success of nomadic pastoralist individuals and populations; today, one outcome of the retention of positive attitudes to mobility is a population permeated by multiple movements over space and between households, communities and lifestyles with both positive and negative impacts on development of the skills and knowledge base needed to become a functional adult.

1.1 Studying mobile children

In many contexts mobile children may be largely invisible from the perspective of available data on them. Where such children are members of a population whose economic system is predicated on mobility this invisibility becomes more acute but one must not assume that invisibility invariably indicates vulnerability. Figure 1 conceptualises the data barriers to knowing about mobile children most of which are the consequences of problems inhibiting data collection from mobile people rather than the intrinsic mobility of children themselves. Such is the case in many DHS surveys: in Mali in 1987 and 1996 no rural sample was taken in 6th and 7th regions (where most pastoral nomads live). In 2001 there was a deliberate decision to exclude 'sections d'enumeration' which were classified as nomadic from the sampling frame (République du Mali 1987, 1996, 2001). Other examples of poor coverage of mobile populations in the DHS abound.

Within a population, mobile households are more likely to be excluded than fixed households because they are not included in the sampling frame, are absent or not found. In the Chad DHS they did attempt to include nomads based on enumeration units from census with an exhaustive list of households, but 3 clusters identified as nomads in the mapping phase had moved by the time of the survey and no questionnaires were completed for them (République de Tchad, 1997). At household level there are a range of child types more likely to be underreported depending on the particular cultural context; however such omissions are usually related to the intrinsic characteristics of the child (age, sex, health) or its perceived importance rather than mobility. For three categories of children mobility contributes to their invisibility in data - homeless or street children, children who are not living in the same household

as their parents and those who have ambiguous residence status because of inter-household mobility.

1.2 Vulnerability of mobile children

In the case of vulnerability it is important to separate out conceptually whether mobility itself influences vulnerability or whether the key factor is the environment or situation where the child actually ends up. Equally important is the causal direction: does mobility lead to vulnerability or vice versa?

Given that mobile children are likely to be underrepresented in our knowledge about their characteristics, are they also more likely to be vulnerable? Generalisations about the impact of mobility on vulnerability are hazardous because it is quite possible that there are both costs and benefits to many mobilities with the causes and contexts of mobility being critical influences on outcomes. Five main dimensions of potential vulnerability are used here: nutritional, health, social and cultural, skills and formal education. Nutritional and health vulnerability are immediate problems affecting childhood welfare with longer term repercussions. The social and cultural dimension involves the child's ability to learn appropriate social rules, to develop meaningful relationships and social networks and to generally develop his or her identity and security within the social sphere. Basically this is the foundation for future social capital but also contributes to a fulfilling childhood. Skills and formal education may be important during childhood but are critical post-childhood for the child to develop into an adult who is capable of working, surviving and contributing to society and his or her future. By skills we mean the essential practical working knowledge that is acquired through watching, participating, helping and working as an apprentice in contrast to the formal educational setting in schools.

These dimensions of child mobility are now considered for a population where mobility has long permeated all aspects of life in order to investigate the multiple relationships between mobility and vulnerability.

1.3 Malian Kel Tamasheq

Kel Tamasheq live across Northern Mali, southern Algeria, Niger and northern Burkina Faso and most used to be archetypal nomadic pastoralists, herding goats, sheep, cattle and camels according to the local environment. Two entirely nomadic populations were studied in 1981 and 1982 (Randall 1984, 1996) when western Kel Tamasheq spent the dry season using pastures in the inner Niger delta, leaving in the wet season to move north and west into drier areas. Both populations were socially heterogeneous with representatives of all the different Tamasheq social classes; warriors, religious maraboutic groups, vassals, lower status groups, blacksmiths, and Bella - slaves and ex-slaves[1].

The higher status social classes are descended from Berber populations who crossed the Sahara, in the 15th and 16th centuries. Tamasheq is a Berber language and physically most higher status Kel Tamasheq (Tuareg) are Berber and are often referred to both by themselves and other Malians as red (rouges)[2]. Slavery was a well established institution in pre-colonial times and most Tamasheq slaves were

[1] The Tamasheq term for the ex-slave class is *iklan* but this has pejorative overtones. The Songhay term, Bella, is used here.
[2] The terminology of Bella (black) and Tuareg (red) are used here.

originally captured in raids on villages and other communities living in the area and further south. Bella are black African and although they speak Tamasheq, they are clearly have different genetic origins to the Berber Tuareg. Many Bella were liberated in the colonial period and after independence, although de facto ownership of slaves still continued at the time of the 1981-2 surveys with many Tuareg having resident Bella to do most domestic and herding work. The 1981-2 surveys included both domestic Bella and pastoralist Bella who had been freed for several generations.

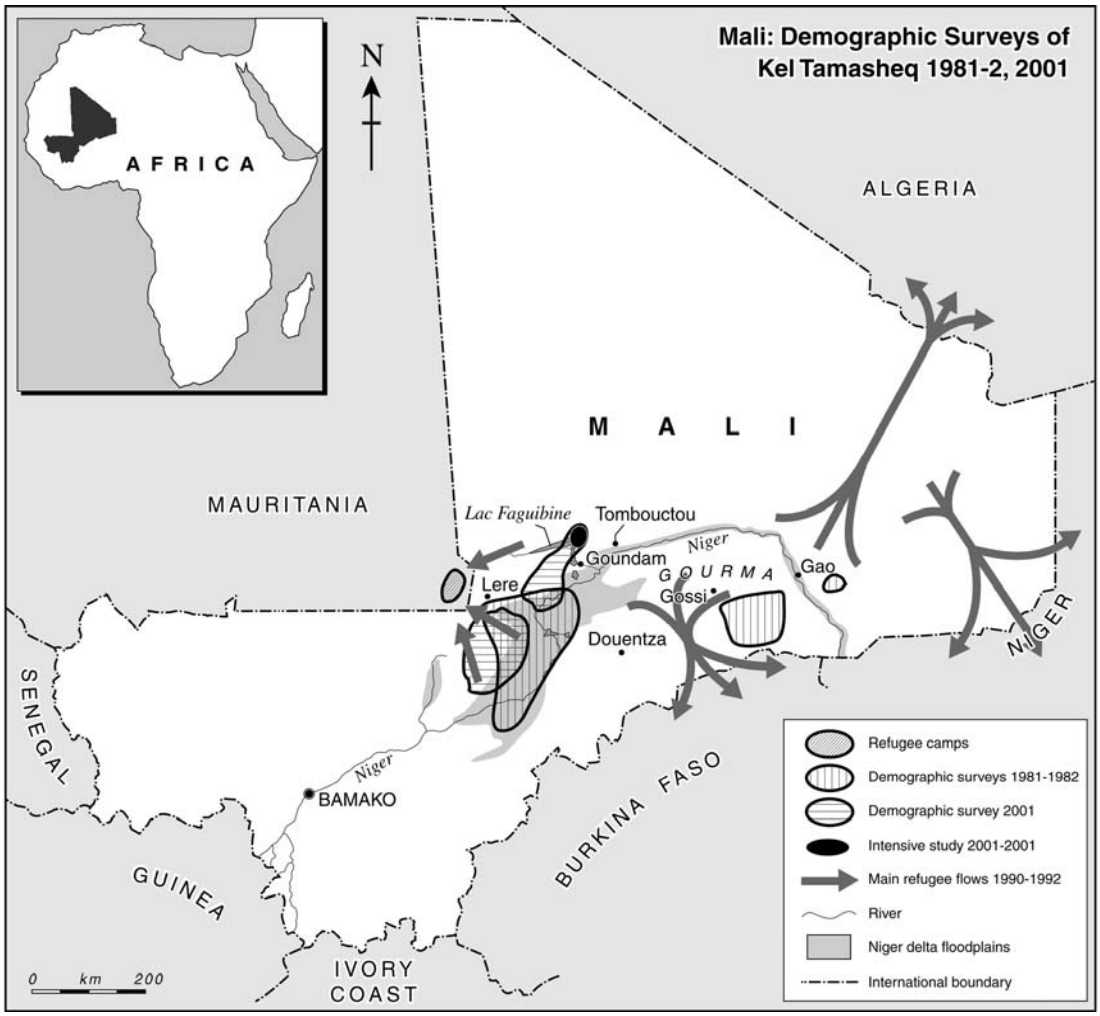
Drought in 1984-5 led to substantial herd losses, population movements, food aid and a mushrooming of international and local NGOs. Many dependent Bella left their owners who could no longer afford to maintain them and no longer needed the labour; people moved temporarily to the towns and some groups started to sedentarise (Randall & Giuffrida, in press). Those who remained nomadic became less isolated, with increased knowledge about the outside world and contact with development projects.

Forced movements were imposed on top of the underlying patterns of general nomadic mobility. A Tuareg and Maure rebellion broke out in Northern Mali in 1990 and the Malian Army first patrolled the areas and then clashed with the rebels. Rebel attacks increased in intensity throughout early 1991 and gradually expanded westwards towards Tombouctou and the Mema (see map), with escalating retaliations by the Malian army on Tuareg and Maures with men, women and children being killed in camps, villages and towns. The Malian population became incited against the 'reds' and there were attacks and raids on businesses owned by Tuareg and Maures throughout northern Mali. Skin colour and physical appearance was a major factor identifying those who were attacked and after a massacre in Lere in May 1991, Tuareg in the Delta and Mema areas fled en masse to Mauritania[3] (elsewhere people fled to Algeria, Niger and Burkina Faso) just across the border. Some took their herds and tried to continue to be mobile pastoralists in Mauritania – facing major problems with access to water and wells. Others left everything behind or consumed most of their animals during the flight. Some people in the north avoided international flight and became internally displaced, hiding in isolated mountains and dunes whilst a few fled to villages and small towns.

UNHCR, WFP and NGOs responded rapidly and set up refugee camps. Conditions were poor at first because of the scale of the crisis and the isolation of the area. People continued to flood into the refugee camps through 1991 and 1992 and into 1993 and 1994. Spontaneous repatriations occurred throughout but the majority left after 1996, having spent 4 or 5 years there, under a repatriation programme run by UNHCR and GTZ. Although the majority of camp residents had previously been nomadic pastoralists, there were also people who had sedentarised after the 1985 drought, along with civil servants, teachers, traders, craftsmen and students. Bella were not persecuted and most remained in Mali, some with the animals, some leaving the pastoral sector altogether. In the refugee camps the former pastoral nomads experienced many changes including being fixed in one place with large numbers of people from different social groups alongside the educated and those who had left the pastoral sector and zone. Many young people enjoyed a varied and active

[3] Most people in the Mema left because there was nowhere there to hide. Further north, around Goundam and Tombouctou, some fled but others hid with their animals in the mountains and the desert. The massacres in the North were later – around 1994 – and more people fled then.

social life. Rudimentary health care provision developed into immunisation programmes, free health and maternity care, boreholes provided clean tap water and schools were established.



Repatriation made further changes to life-style. Part of the reconciliation and repatriation package developed by the Malian government with UNHCR and other international organizations included promises to build schools, drill boreholes and develop infrastructure proportional to the population registered in the specific destinations refugees were obliged to return to. This encouraged sedentarisation and has led to a proliferation of wells surrounded by small settlements (Randall & Giuffrida in press). People with few or no animals no longer needed to be nomadic and many of those who retained animals claim to have seen the physical benefits of a sedentary lifestyle, although there are also political aspects to this transformation.

Thus in 2001, 4 years after repatriation, much of the population was relatively sedentary, few were totally dependent on a pastoral economy, unpaid domestic labour was rarely available. Formal education was more acceptable and available, there was an increased knowledge about and demand for modern health services and good quality water was usually close by. The droughts of 1973 and the mid 1980s coupled with the rebellion had reduced the viability of the pastoral economy for many people and this economic crisis accompanied by forced migration might be thought certain to have had serious impacts on child welfare. However this is a

population whose traditional lifestyle is based on mobility and flexibility. These internalised values were essential for survival in the past and one needs to examine the extent to which mobility continues to contribute to contemporary well-being rather than being an indicator of stress.

2. Data and methods

A single-round demographic survey (SRDS)was undertaken in 2001 amongst the westernmost Tuareg, most of whom fled to Mauritania in the rebellion and were repatriated in 1996-7. Some demographic data on the same population are available for 1981 when everyone lived a nomadic pastoral lifestyle. These surveys are complemented by anthropological fieldwork (AF) and a small multi-round household survey (MRS) in 2000-2001. Using these various data sources we examine what a classic cross-sectional demographic survey can and cannot reveal about child mobility and welfare, and we consider the various socio-demographic and economic situations that may cause children to move and what sorts of characteristics might be indicative of vulnerability or advantage in these communities. Mobility outcomes are considered both from the emic perspective and from that of demographers and development agencies with their discourse of development and progress.

2.1 Child mobility

A child was defined as aged 16 or under and such children constituted 48% of the 8273 people enumerated in the SRDS[4]. There is a vast typology of movements in which Tamasheq children have participated over the last 15 years but the majority can be subsumed under the following eight headings.

(a) spatial mobility as an integral part of pastoral production
(b) Non-pastoral spatial mobility associated with the family's economic activities. This can include migration out of the pastoral zone or migration to non-pastoral communities (villages and towns) within the pastoral zone.
(c) child labour mobility – which leads to residence away from the natal family
(d) inter-household mobility – often as a consequence of divorce or orphanhood
(e) educational mobility – to attend either quranic or modern school.
(f) marital mobility – girls who leave their natal home to marry.
(g) temporary mobility – visits to kin and others
(h) forced migration and repatriation

It is impossible to capture the diversity and intensity of all such movements using surveys even when specifically adapted to the known characteristics of the population. Nevertheless the two survey types, in conjunction with lessons learnt from the anthropological fieldwork, can identify a number of different movements.

2.2 Categorising and measuring mobility

Because this population is so highly mobile, and over the course of a year, let alone a lifetime, people will have moved in a vast variety of ways, over huge landscapes and for many different motives, and because of their general lack of interest in chronological time and dates, it is impossible to collect individual level migration histories. In the anthropological study some life histories were collected which were

[4] The same proportion occurred in the MRS.

testimony to the huge complexity and variety of movements where, because of recent economic and political history many people, men in particular, have moved in and out of different economic activities. Inevitably when the productive adults are highly mobile then the children may be too. One issue then becomes 'how should this child mobility be categorised?' Should children be seen as mobile because they are accompanying mobile kin (i.e. prioritising the kinship relationships) or should their mobility be conceptualised as inherent in the production system (prioritising the economic dimension)? Where there is evidence that children are mobile because the whole household is mobile we have ascribed the motive for the child mobility to that of the mother (if the child is with its mother) or the general motive for the whole household. However where the child has moved independently from their apparent household of origin, the social relations aspect (visiting) is considered to be the primary dimension – and transhumance or production related mobility once on the visit is downplayed. This is a domain where survey data are overly simplistic since an important reason for sending schoolchildren to visit nomadic kin in the rainy season is precisely to learn about aspects of mobile animal husbandry.

A major problem in recording mobility is the complexity of movements. Faced with individuals who moved constantly during the last 15 years; herding, forced migration, drought induced movements, men who fought with rebel groups, men who trained in Libya, children who move between households themselves moving between mobile and sedentary lifestyles – even had we tried to collect detailed data, the range of experiences would have defeated us and antagonised interviewees who are less than keen on survey approaches. For this reason, in the SRDS simplified data on 'way of life' were collected for each individual for 4 periods:

Before 1985	*Before the drought which decimated herds and led many to sedentarise*
1985-90	*Between the drought and the rebellion*
1991-96	*During the rebellion*
1997+	*Since repatriation*

For each of these periods we asked whether the predominant way of life **for the majority of that time period** the individual had been

(1) Nomadic (moving with animals throughout the year)
(2) Semi nomadic (moving with animals for less than half the year)
(3) Sedentary in a 'site' – a Tamasheq sedentarised community
(4) Sedentary in a multi-ethnic village
(5) In a town
(6) In a refugee camp

Such a classification had the merit of being relatively simple to ask and to code, and most people had no difficulty in answering. It does not account for complex itineraries and only records the dominant residence. Thus, although most people in the southern zone surveyed fled to the refugee camps in 1991, in the more northerly areas many did not flee until 1993 or 1994 but all would be recorded as being 'refugee camp' during 1991-96. These 'way of life' data show that the vast majority of the population were nomadic before 1985 and about 15% sedentarised after the drought. About 90% fled to the refugee camps and since repatriation, about half are sedentary, 15% semi sedentary and 35% nomadic. Knowledge about the population from observations and oral histories allows us to complement this residential

information with ideas about the mobilty types such residences imply. Transitions between these different ways of life can also be conceptualised as mobilities since they are a transition between one sort of mobility and another. Data were also collected on transhumance (taking the animals to the good wet season pastures – which inevitably involves frequent movements and living in a tent) in the preceding wet season.

For all children it was possible to identify whether their parents were alive and whether they were co-resident with living parents. Further independent data are available from birth histories where all mothers declared where their living children were at the moment of the survey, and, if not with their mother, why not.

A multi-round survey (MRS) was conducted between May 2000 and August 2001 for 57 households. These households were selected at random from three different community types in the northern study zone. Tinaman[5] was a sedentary community (site) which had developed since repatriation. With a school and several literate people, some of whom were retired civil servants, many in this rather atypical community had good kinship connections with both the Malian administration and NGOs, but had also been pastoral nomads. Ejef had been a small administrative village in the 1970s and 1980s but was abandoned during the rebellion. In the post-rebellion de-centralisation it became a commune and benefited from some central financial support, investment by NGOs and had a school. It too contained more French speaking individuals than the average Tamasheq community but also had a number of poor illiterate ex-pastoralists and some transient nomadic households. Data were also collected on households from three nomadic zones. In most cases 4 rounds were achieved.

(1) in May/June – late hot season
(2) September-October – after the rainy season
(3) Dec-Feb – cold or late cold season
(4) July – mid rainy season.

For Ejef the first round was in October with the fourth round the following September. For one nomadic community only three rounds were achieved, the first being in September. The aims of the multi-round survey were to document seasonal changes in economic activities by individuals and the extent of child labour (these were fairly unsuccessful) and movements of the whole household and of individuals in and out of the household trying to understand which sorts of people and households were most mobile and why. In fact the degree of movement made both the data collection and even the simple categorisation of household level movement highly difficult to conceptualise. Part of the problem arose from nomadic households who were rarely found in the same area twice. In most cases information was available on their location and some were traced (thus they moved but data were collected as though they were fixed). Occasionally it was known where households were but visiting them was impractical, a few households were lost to follow-up.

3. The extent of child mobilities

3.1 Spatial mobility and pastoral production

[5] All place and person names are pseudonyms

Compared to 1981 pastoral production related mobility is much reduced (table 1), although persistent underlying mobility of the population is demonstrated by the fact that 49% of children went on transhumance in the wet season preceding the survey. Proportions barely differ by age and sex suggesting that usually the whole household moved together. About 1/3 of children had been nomadic since the repatriation in 1996-7.

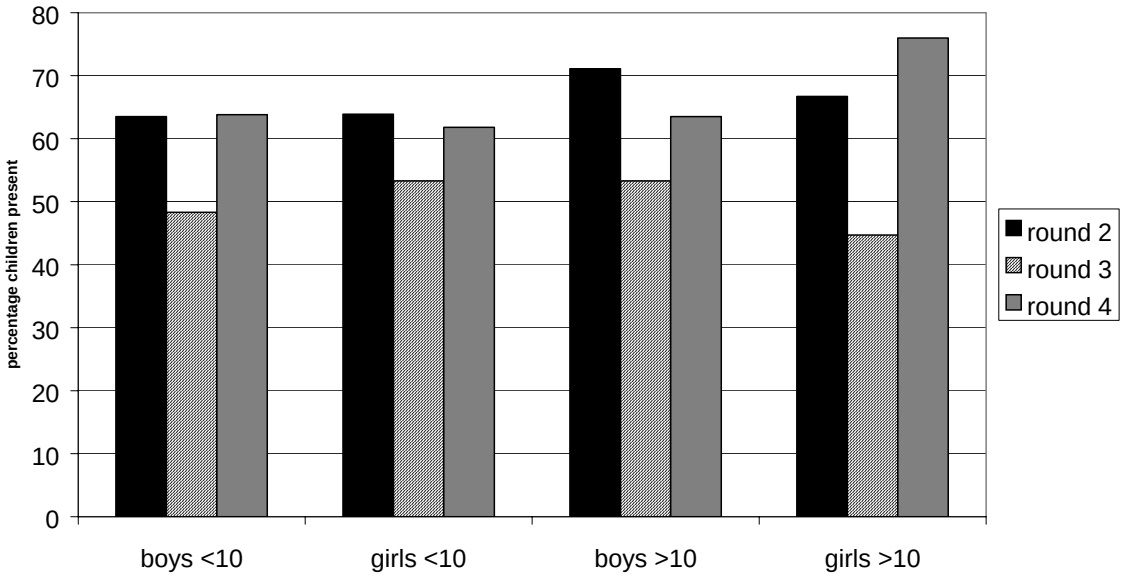
Table 1: Children's mobility with family and herds 1981, 1991-6, 1996+: percentage distribution (SRDS)

	1981	1991-6	since 1996	
	all	10-16(in 2001)	0-9	10-16
nomadic	100	13.9	33.4	30.0
semi-sedentary	0	0.1	16.8	16.0
sedentary	0	4.2	49.7	54.0
refugee camp	0	81.1	0	0
transhumed previous wet season	100	nd	50.2	46.5
N	2572	1429	2533	1435

Using MRS data figure 2 illustrates the substantial heterogeneity of household level mobility over the year; absences are primarily due to herd related mobility - these household data do not capture individual level mobility in and out of households[6]. Most households in Ejef, the administrative centre, remain there year round and do not even leave to follow the animals in the wet season. This contrasts with Tinaman where only half the households were present during the wet season. The mobile nomadic households generally transhumed fairly locally and were located in subsequent rounds. Less than one quarter of households did not move at all throughout the surveillance year.

[6] A subjective judgement was made about who constituted the majority of the household.

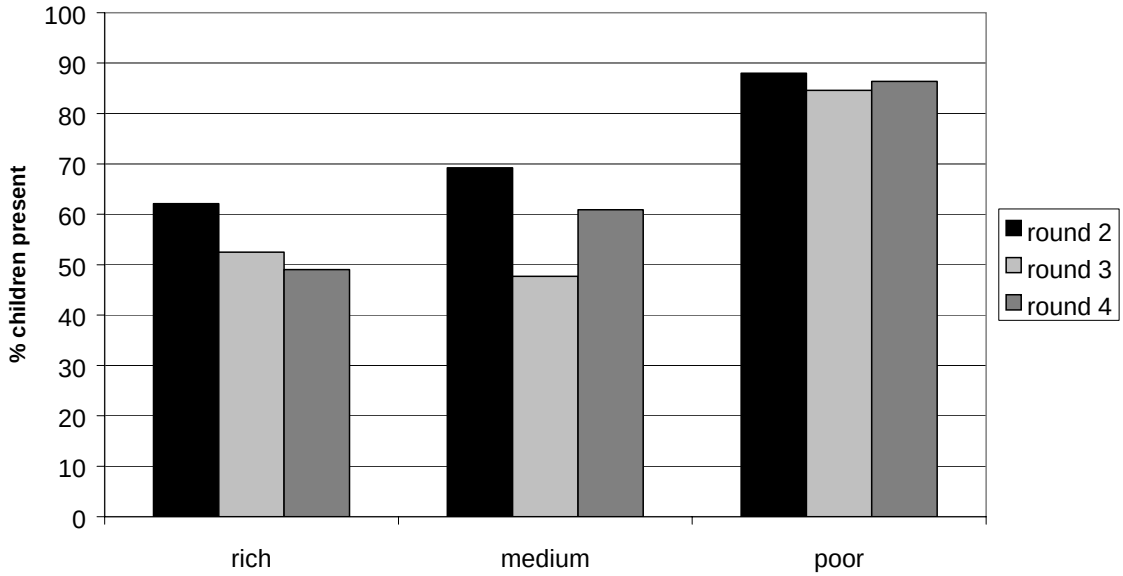
Figure 3: Presence of children in MRS rounds



Using MRS individual level data figure 3 shows that only 50-70% children recorded in the base round were present in subsequent rounds and this underestimates the true level of mobility in and out of households because where the whole household was absent it was assumed that everyone was together. High absenteeism in round three reflects the poor tracing of nomadic households; in the sedentary communities the percentages present were similar to the other rounds. Absence because of transhumance increased as the rounds progressed because of seasonal factors – the last round was in the wet season, which is also the school holidays and the period when people like to join their animals because milk is plentiful.

Are children from wealthy households more or less mobile than those from poor households? Household wealth was categorised subjectively based on observations of the households over the period of fieldwork and households were grouped into three wealth categories. It is impossible to collect accurate data on animal ownership or income although wealth is largely defined by animal ownership. The more wealthy children are the most mobile – and the poorest the most stable (Figure 4). This is not unexpected given that the majority of movements are livestock related and thus those lacking livestock have no need for this mobility.

Figure 4: Presence of children by wealth of household



3.2 non-pastoral migration

The scale of this phenomenon is not available from the demographic survey which concentrated on pastoral movements and forced migration. The anthropological study suggests that there is a considerable amount of non-pastoral labour migration with diverse outcomes for children, especially during the rebellion when men did not want to go to the refugee camps. Men usually migrate alone for work (and may go as far as Algeria or Libya) and their wives and children may end up moving around between different members of the extended family in a range of contrasting urban and rural (or refugee camp) environments with varying consequences for their well-being.

3.3 Labour mobility

Data from women's birth histories on the whereabouts of their children indicate that 1.6% boys aged 10-16 are working away from their family and 1.3% girls. In the SRDS over half the Tuareg girls stated that they did no work at all, not even housework whereas 42% did housework. In contrast 25% Bella girls worked as unpaid domestic workers with a further 5% paid for their labour. 10 % Bella aged 6-16 were recorded living within Tuareg households working as herders or domestic help; this is a significant decline from the 16% Bella boys and 25% Bella girls in 1981. Such residential work is usually unpaid or rewarded in kind, although low wages have become more frequent recently. Bella children living in Tuareg households are likely to be very vulnerable on a number of fronts. The majority are female, they are there to work, some are as young as 6 and in many ways they are denigrated by the Tuareg just because they are Bella. On the other hand a Tuareg household which still retains Bella is likely to be rich and own substantial numbers of animals, and the Bella child will be more likely to get milk, meat and butter than if she were with her parents. We know that these co-resident Bella children were undercounted. In a couple of camps they were omitted from the questionnaires and it was only from noticing them[7] and specifically asking where they lived that we could locate them. In one large camp there were substantial numbers of Bella children and

[7] in a Tuareg camp a Bella child is very conspicuous

adults but it was impossible to get household heads to say where they lived. This was a large, very traditional camp which was quite hostile to the research and we were unable to resolve the issue satisfactorily. People's reluctance to talk about Bella in their households probably stems from two issues. Firstly most Tuareg still see Bella as second class citizens and could not understand why we should want to record them. Secondly it is known that Europeans and the Malian government are opposed to the vestiges of slavery and people may have felt uncertain about the motives of the survey. Such invisibility is part of the vulnerability of these Bella children. Where Bella families remain in a very traditional relationship with their former 'owners' the Bella parents themselves may feel that they have little agency over deciding where their child lives. If the 'master' or 'mistress' demands the child then tradition means that the child has to go. This is becoming much rarer because of general social change, impoverishment and primarily because of the different rebellion experiences of the two social groups and this serves to execerbate the multiple vulnerabilities of those Bella children who remain in a servile position.

Similar proportions (45%) of Tuareg and Bella boys worked as herders, mainly for their own families. This work involves substantial mobility and risk – small stock are generally herded during the day but may be quite distant from the camp. During childhood a boy who herds is at greater risk of injury or death than one who doesn't but in terms of long-term skill acquisition of animal husbandry and knowledge of the local environment such an apprenticeship is essential if the boy is to become an effective pastoralist when adult and the long-term benefits are substantial.

3.4 Interhousehold mobility

Much childhood mobility is movement between households for various reasons. An important factor is marital breakdown either through widowhood or divorce where theoretically, the mother retains the children until they are 7 when they move to live with their father or his close kin. In practice many remain with their mothers making prolonged visits from one set of kin to the other so that it may be difficult to establish their permanent residence. Thus in surveys, they may appear as visitors in the household where they are encountered, but not included in the other household (therefore apparently living nowhere) or conversely they may appear as normal residents in both (thus being double counted). It is impossible to evaluate the extent of these phenomena but we can use the various data sets to evaluate the degree of such mobility and how it appears to vary by sex and age.

Non-orphans were the most residentially stable although less than 80% were living with both parents and another 11% were living with one divorced parent; around 10% lived with non-parental kin (SRDS). Observations suggest that whereas some of these arrangements may be semi-permanent fostering arrangements, a few children lodge with kin in order to attend school and some children are just perpetually in motion between different households.

From maternal birth histories (by definition NOT maternal orphans) 94% boys and 95.7% girls under age 10 are living with their mothers. For older children this drops to 79.1% boys and 77.2% girls. Apart from 3.6% older boys who are in quranic schools and 10.9% older girls who are married the majority of absent children are living with grandparents, their father or other kin (table 2)

Table 2: Percentage of children by age living away from their mothers (source: SRDS birth histories)

(a)Age <10

Mother's marital status	Married		Widowed		Divorced/sep		All women	
	M	F	M	F	M	F	M	F
quranic school	0.6		1.9		1.9		0.7	
grandparents	1.4	2.1	3.8	7.1	0	1.8	1.4	2.3
with kin	1.1	.8	3.8	2.4	0	0	1.2	0.8
with father	1.1	.8	-	-	25.9	7.3	2.4	1.1
other	0.3	0	0.1	0	0	0	0.3	0
Total away from mother	4.5 (873)	3.7 (794)	9.6 (52)	9.5 (42)	27.3 (54)	10.1 (55)	6 (982)	4.3% (894)

(b) Age 10-16

Mother's marital status	Married		widowed		Divorced/sep		All women	
	M	F	M	F	M	F	M	F
quranic school	3.3	0	4.3	0	5.6	0	3.6	0
grandparents	2.4	3.0	7.2	3.0	0	0	3.0	2.8
with kin	3.3	2.7	5.8	10.6	0	0	3.4	3.6
with father	6.0	2.7	-	-	22.5	19.4	6.4	3.6
other	5.1	11.9	3.4	18.2	0	8.3	4.5	12.8
Total away from mother	20.1 (334)	20.5 (366)	21.7 (69)	31.8 (66)	27.3 (36)	17.8 (36)	20.9 (440)	22.8% (470)

From these birth history data older children are much more likely to be living away from their mothers whether the mother is married or not. After divorce, boys are much more likely than girls to go and live with their father, especially at younger ages. After death of a father, although his family has the right to claim the child they appear not to exercise this right very often. Girls of widowed mothers are much more likely to marry young than other girls but it is difficult to interpret this in terms of differential vulnerability.

The SRDS household data (Table 3) suggest that nearly 80% maternal orphans live with their father but only 70% younger and 57% older paternal orphans live with their mother thus contradicting the birth history data. There may be several reasons for this. Firstly mothers may declare their children to be living with them even when they really only come for visits. Women may provide deliberately false information for a variety of reasons which could included distress but might be because they perceived the survey to be linked to a handout (these people had spent several years in refugee camps where there were endless lists of families and entitlements). Women who have remarried may have omitted children from their previous marriages in the birth histories[8]. In the SRDS men may have listed those children (of their dead brothers) who they thought ought to be living with them, because they had a legal responsibility for the child, or for potential rations. Whatever the reason, it is clear that there is both a significant amount of child mobility between households and

[8] The birth and marriage histories were designed to avoid this by first asking women about all their marriages and then the children by each specific marriage. This problem should therefore be minimal.

different groups may claim children for a variety of reasons. This suggests that children remain pawns in various resource accessing games but may also render them invisible at times and therefore vulnerable. The fact that many children, even quite young ones live away from their mother may also increase vulnerability although these children usually pay prolonged visits to their mother.

Table 3: Percentage of children by age, sex and residence (Household data SRDS)
Children under 10

Living with	Non orphans M	Non orphans F	Paternal orphans M	Paternal orphans F	Maternal orphans M	Maternal orphans F	Dual orphans M	Dual orphans F
both/ surviving parent	83.1	82.3	74.7	69.4	72.6	71.7	na	na
divorced parent	9.4	10.9	na	na	na	na	na	na
grandparents	2.6	3.4	1.2	6.9	8.1	2.2	30.8	11.1
sibling	0.1	0.5	16.9	9.7	6.5	6.5	7.7	55.6
distant kin	1.9	1.9	6.0	13.9	12.9	17.4	61.5	33.3
adopted	0.1	0.1	0	0	0	0	0	0
coranic school	2.8	0	1.2	0	0	0	0	0
as servant	0.2	0.9	0	0	0	2.2	0	0
married woman	na	0.1	0	0	0	0	0	0
N	1174	1074	83	72	62	46	13	9
sex ratio	**1.09**		**1.15**		**1.16**		**1.44**	

Children 10-16

Living with	Non orphans M	Non orphans F	Paternal orphans M	Paternal orphans F	Maternal orphans M	Maternal orphans F	Dual orphans M	Dual orphans F
both/ surviving parent	68.2	69.1	50	45.4	86.7	67.2	na	na
divorced parent	16.3	10.5	na	na	na	na	na	na
grandparents	1.0	2.1	0.8	4.9	1.1	1.7	5.6	9.5
sibling	2.1	0.8	17.5	17.9	4.4	6.9	41.7	26.2
distant kin	3.5	3.8	19.8	17.9	6.7	6.9	41.7	31.0
adopted	0	0	0.1	0	0	0	2.8	0
coranic school	6.6	0	6.3	0	1.1	0	2.8	2.4
as servant	2.3	4.8	4.8	4.1	0	8.6	5.6	6.3
married woman	na	8.8	na	9.8	na	8.6	na	4.8
N	485	475	126	123	90	58	36	42
sex ratio	**1.02**		**1.02**		**1.55**		**0.86**	

Dual orphans are relatively rare at around 1% children under 10 and 5% children 10-16. Just under a third live with a sibling and just over a third with distant kin (uncles or cousins) and only 11% live with a grandparent (few grandparents are still alive). There is a lack of reported female maternal orphans (sex ratios: children <10 = 1.35, age 10-16=1.55). This could be interpreted in three ways. Either female maternal orphans have higher mortality than males, or they are underreported, or they are more likely to leave the zone. Whilst an element of all three is probably the case, underreporting seems the most likely cause and it may be that such girls are shunted

around from household to household, none really claiming that she belongs there. If this is the case then such girls are a particularly vulnerable mobile group, invisible because of their mobility. In the birth histories there also is a deficit of younger girls (sex ratio = 1.1) but an excess of older girls (sex ratio =0.94). Women did express a general preference for sons and this may have led to omission of younger girls. Women might omit their older sons if they were at quranic school or away herding. What is clear is that some categories of children are underreported. With the cross checks built into the survey, this inevitably meant that they were not present in the community at the time of the survey and were therefore mobile in some way.

3.5 Educational mobility

Only about 10% children aged 7-14 currently attend modern school and the SRDS does not indicate a substantial amount of inter-household mobility for school attendance, but it may be that pupil lodgers were omitted from the household lists because the anthropological study suggests otherwise, with many children moving to lodge near the school in Ejef. In contrast the quranic schools attract children from long distances. According to the SRDS 7% boys aged 7-14 live in their Islamic teacher's household to study the quran. In theory these boys are treated as part of their teacher's household but, since begging is acceptable for such students, in practice many are very vulnerable and easily exploited. Their situation depends enormously on the character of their teacher. These boys were clearly over represented in the demographic survey with both their parents and the teacher claiming them as household members. For the age group 7-14 there was a substantial excess of reported males but removing the quranic scholars balanced the age-sex distribution. Particular cases of these boys were observed in the interviews where both parents and marabout were adamant that the boys belonged to their household. In one site one marabout had 22 quranic students and another had 6. These children are not with kin and are often far from home for many years. In rural areas they may be less vulnerable than in towns where they have to beg on the streets, but they are probably at risk of malnutrition and physical exploitation.

Modern schooling is better adapted to the local production system now than at any time in the past. In the colonial period and after Independence schools in the north were few and far between and boys were often captured from their parents by administrators and dragged off to school (from where they frequently ran away). Changing government education policies coupled with increased sedentarisation in larger communities since repatriation mean more schools and more educated Tamasheq who want to teach in them under the new system of 'écoles communautaires'. Schools remain immobile and in the larger sites so nomadic parents who wish their children to be educated either have to arrange for them to live with kin, or settle in one of the communities with a school (as did one of the nomad sample in the MRS did).

In the MRS children were deemed to go to school according to their status in the first round. No children from the nomadic sample went to school so they are excluded from table 4 which shows the proportion of schoolchildren absent in each round.

Table 4: percentage children aged 6-16 absent by round, site and schooling

	not at school	at school
round 2: Tinaman	31.8	35.3
Ejef	5.6	16.7
round 3: Tinaman	40.9	11.8
Ejef	28.9	58.3
round 4: Tinaman	44.4	35.3
Ejef	25.0	62.5

In Tinaman the non pupils were most mobile because more of the population was actively involved in pastoralism. In Ejef school children are much more mobile than those who do not attend school. Some lodge with kin in order to attend school and may change households in between rounds and most return to their families whenever there are school holidays. Even those who live at home are often despatched off to nomadic kin in the long summer holidays (which coincides with the wet season and round 4 for Tinaman and rounds 3 and 4 for Ejef). It is not clear whether this is just part of tradition (in 1981 Tuareg children living in cities all spent their summer holidays in nomadic camps) or whether there is a more serious learning process in terms of trying to maximise the herding skills and bush awareness of these children who were de-skilled compared to their nomadic kin through school attendance.

3.6 Marital mobility

For girls marriage is the ultimate form of interhousehold mobility. A quarter of girls aged 15-16 were married, 4.1% those aged 10-14 and 1 girl aged 9. The past tradition where a young girl would go and live with her in-laws from the age of about 5 or 6 is now rare but before the droughts of the mid 1980s this pre-marital residence with the in-laws, including being force-fed (Randall 1984, Randall & Winter 1985, Randall 2005), was relatively frequent. Early marriage remains a major form of female child mobility. 6/34 girls aged 10-16 in the MRS left their households for marriage. Because the majority of such young marriages are with close kin (over half of first marriages are with first cousins) the young brides are generally treated well in their marriage homes because of the strong kin obligations in Tamasheq society. However many of these young girls have barely reached puberty and maternal mortality is extremely high in this population (lifetime risk of 1 in 8) with early childbearing is a likely risk factor although such vulnerability is not itself a direct consequence of mobility. In many ways the choice of close kin spouses contributes to minimising problems engendered by general spatial mobility by reinforcing links and obligations with kin.

3.7 Temporary mobility: visits

Much inter-household mobility is a consequence of visits and it is certain that the amount of visiting was seriously under recorded in both the SRDS and the MRS. Visiting is very important in this population and because of low population density visits tend to be over quite long distances and may last for weeks or months. As can be seen from individual level child mobility (figure 5) much of the mobility of children under 10 was because of visits – usually accompanying their mother to visit her kin. Most such visits are just social, reinforcing kinship ties and social networks. They may also serve a re-distributive purpose where impoverished families spend long periods visiting wealthier relatives who are obliged to feed them. Women usually return home for their first 2 or 3 births, bringing other children with them and

such visits may last months. These visits are critical in maintaining the social fabric of a society which is otherwise very mobile and, until very recently lived in very small groups. Visiting seems to have intensified since repatriation (although no data are available for 1981) and some of this may be because the wider networks developed in the refugee camps now need to be maintained. With the exceptions of children visiting paternal/maternal kin, or school children visiting relatives in the school holidays most visiting is experienced by children accompanying their parents. This mobility certainly does not increase vulnerability – it is more likely to be beneficial because of the role in developing social capital, but also in exposing children to different environments and different lifestyles.

3.8 forced migration and repatriation

80% children born before the end of the rebellion had either fled to the refugee camps or been born there. All these children suffered the trauma of both flight and repatriation. A further 15% who were not in the refugee camps were nomadic during the rebellion, many of whom fled to remote pastures in the mountains. Less than 7% children were not displaced in someway during the rebellion. The impact of forced migration on child welfare was not unequivocally bad. Although there were temporary peaks in mortality as a consequence of flight and poor refugee camp conditions at the beginning, overall, infant and child mortality has declined substantially since 1991, a decline which can be largely attributed to changed attitudes to sanitation, modern health care and immunisation generated by the refugee camp residence (Randall 2005). Thus here we can see how the enforced population-level immobility and high population density facilitated the provision of services, and, over the 5 year period changed many people's attitudes to modern health care. Changes in mobility were an essential component of this but the specific political situation played an important role since humanitarian agencies were obliged to respond and it was the whole forced migration and refugee-camp context that led to changes, not just the small component of reduced mobility.

Children who were in the refugee camps are twice as likely to attend school 5 years after repatriation than those who weren't. In development discourse this may be seen as progress; in terms of their ability to contribute to the local herding economy when they become adult and their potential to be independent and competent herders these partially schooled children may be inadequately equipped with appropriate skills and environmental knowledge.

Another potential long-term benefit for children from the refugee camp residence is the extended networks of kin and acquaintances which developed. During the demographic survey it became clear that close residence in the refugee camps became a sort of pseudo-kinship which can be mobilised if necessary. High refugee-camp population density and immobility thus may have contributed to more extensive social networks which are a critical part of well-being and safety nets in the current precarious economic situation. In contrast, a major disadvantage of the enforced immobility – especially for older boys – was that they did not acquire herding skills necessary for effective pastoralism as adults, and lost five years potential learning about the local environment, pastures, places, water points and general local knowledge which they would otherwise have acquired from parents and kin and just assisting with herding. In the long term this may be the most serious consequence of the refugee camp exile.

In general the immobility of the refugee camp period was not an isolated issue with particular repercussions – it was just one of many consequences of forced migration which all interacted together.

4. Discussion

It may be erroneous to think that spatial mobility is a key element in determining vulnerability in this population but there may be costs to certain forms of mobility. Table 5 summarises the likely outcomes of different types of mobility and demonstrates that every type of mobility – with the possible exception of non-pastoral migration – brings some benefit for children, although most also have costs.

Table 5: Probable impact of different types of mobility on child vulnerability

	Vulnerabilities				
type of movement	Nutrition	health	social	trad.skills	formal educ.
pastoral production	+	+/-	+	++	-
non-pastoral migration	?	?	(-)	(-)	?
child labour	-	-	?	++	-
inter-household mobility	?	?	+	(+)	?
education: modern quranic	(-) (-)	(+) (-)	? +	-- +	+ -
marital	+ (Obesity)	-	+	+	-
visiting	+/-	+/-	++	+	+/-
forced migration	-	-/+	+	-	+

+ increases welfare / decreases vulnerability
- decreases welfare / increases vulnerability
+/- likely to work in both directions according to context and child's situation
? unknown consequences
brackets indicate a probable effect

Two contrasting examples of the influence of vulnerability on mobility have been mentioned: Bella children whose families were still in a dependent relationship with their 'master/mistress' were likely to end up living away from their parents in a Tuareg household where they were potentially very vulnerable on many fronts. Here it is their overall social vulnerability that generates the mobility and subsequent risks. In contrast, in Ejef it was shown that children in poorer households MRS were less mobile because, without animals, they had no need to go on transhumance. These both suggest that the relationship between child mobility and vulnerability is highly contextual both in this population and elsewhere. The actual conditions leading to mobility, the context in which mobility occurs and the type of mobility all influence the range of outcomes – many of which, themselves are mutually exclusive.

In this population the traditional forms of mobility – related to pastoralism, interhousehold movements and visiting are, on balance, all largely beneficial for most aspects of child welfare, whereas the externally imposed movements or those related to more 'modern developments' such as non pastoral labour migration, forced migration and modern schooling have more ambivalent consequences for children. These patterns reinforce the observation that this is a population whose traditional welfare is predicated upon multiple mobilities and that a decrease in mobility may

improve some indicators of 'development' but probably would actually bring few benefits to the majority of the population. There are dichotomies of mobility in that mobilities which facilitate the acquisition of traditional skills generally inhibit participation in modern education and vice versa.

A key vulnerability in traditional Tamasheq society which is maintained today is access to only a restricted social network of people who can be called upon in time of need. From an early age children participate in forms of mobility that contribute to their parents building and consolidating their networks, but also inserting the children into these networks and making them part of them through multiple visits, movements, changes of residence. As can be seen from table 5 most mobility does contribute to this social capital (possible exceptions being non-pastoral migration and modern schooling – although those may generate new, non-Tamasheq networks which also have long-term utility). For this population this social mobility is probably the most important criterion of long term survival in an uncertain environment – and is certainly more important to maintain than temporary health or good nutritional status. Sedentarisation may look good from the perspective of development indices – but even the sedentarised people maintain their mobility where they can – primarily for the social security benefits it brings.

Another important aspect of mobility is not the movement itself, but where the movement leads to. This is most critical for the first two dimensions of welfare, especially health. In 1981 when a major part of the annual cycle was spent in the Inner Niger Delta infant and child mortality were very high but much of this was a consequence of the water and mosquito related problems in the delta which increased exposure to disease – not a function of mobility itself. Now people are less mobile – but they are also in a drier, more healthy environment away from the delta and with wells. Where animals are taken into the delta it is usually by adult male herders not by whole families. Thus this particular decline in mobility has definitely had beneficial impacts on child health. However – it is not the fact that they are less mobile which is advantageous but the particular environment where they now spend most time. Had they become immobile in the Delta we might have a very different story.

A final issue is that of the invisible or missing children. Several examples above highlighted deficits in sub-groups of the child population whom we are fairly certain exist. In most cases these are categories of people who are less socially valued and as such may be more mobile because they are more likely to be moved on. They are certainly more likely to be vulnerable in most of the highlighted dimensions but such vulnerability is not a consequence of mobility – the mobility and invisibility are more a consequence of the pre-existing vulnerabilities as defined by the dominant values held in this particular population.

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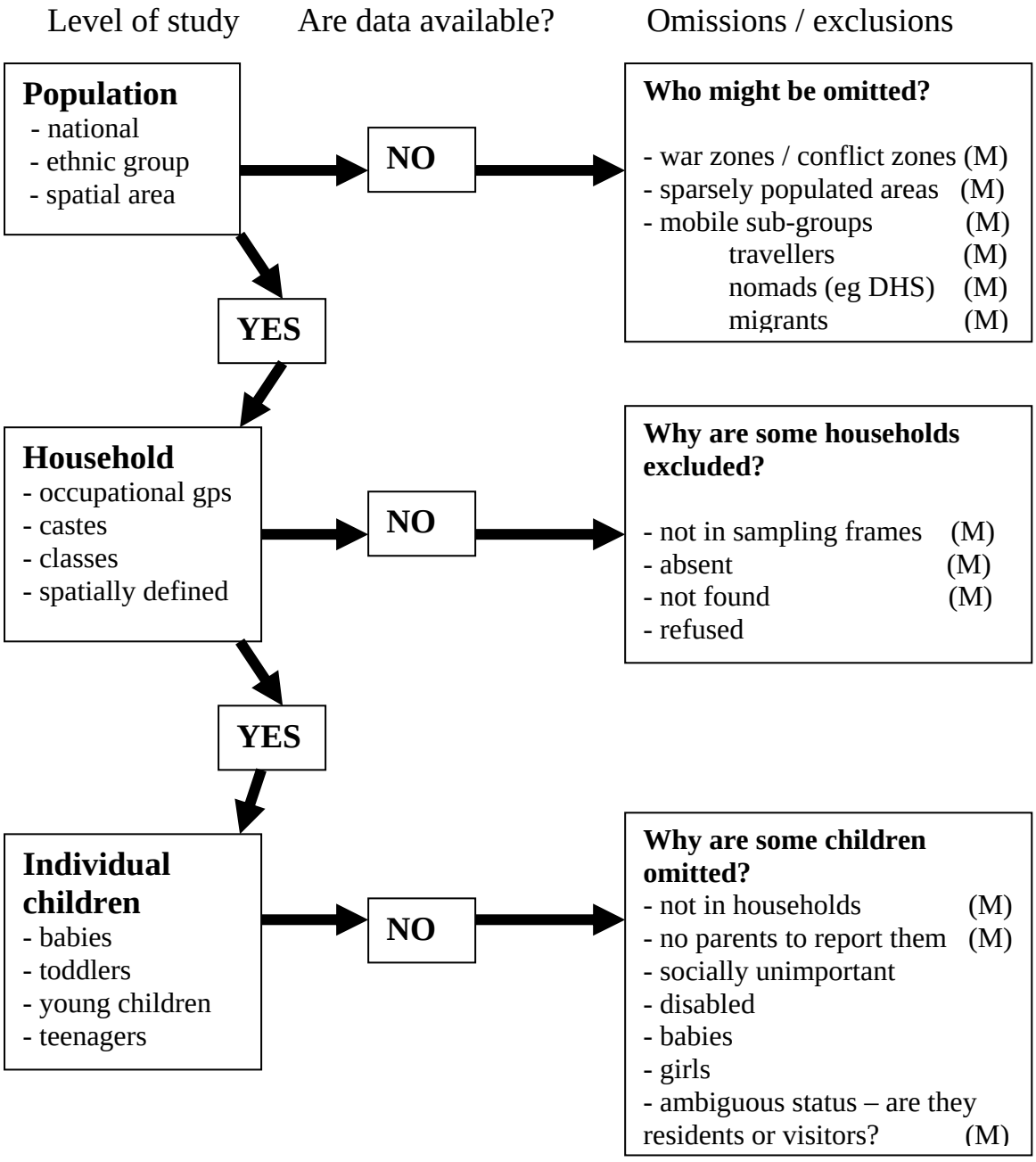
Figure 1: Populations, mobility and data



(M) indicates that mobility often plays a major role in this barrier

Figure 2: Household level mobility 2000-2001 (source MRS)

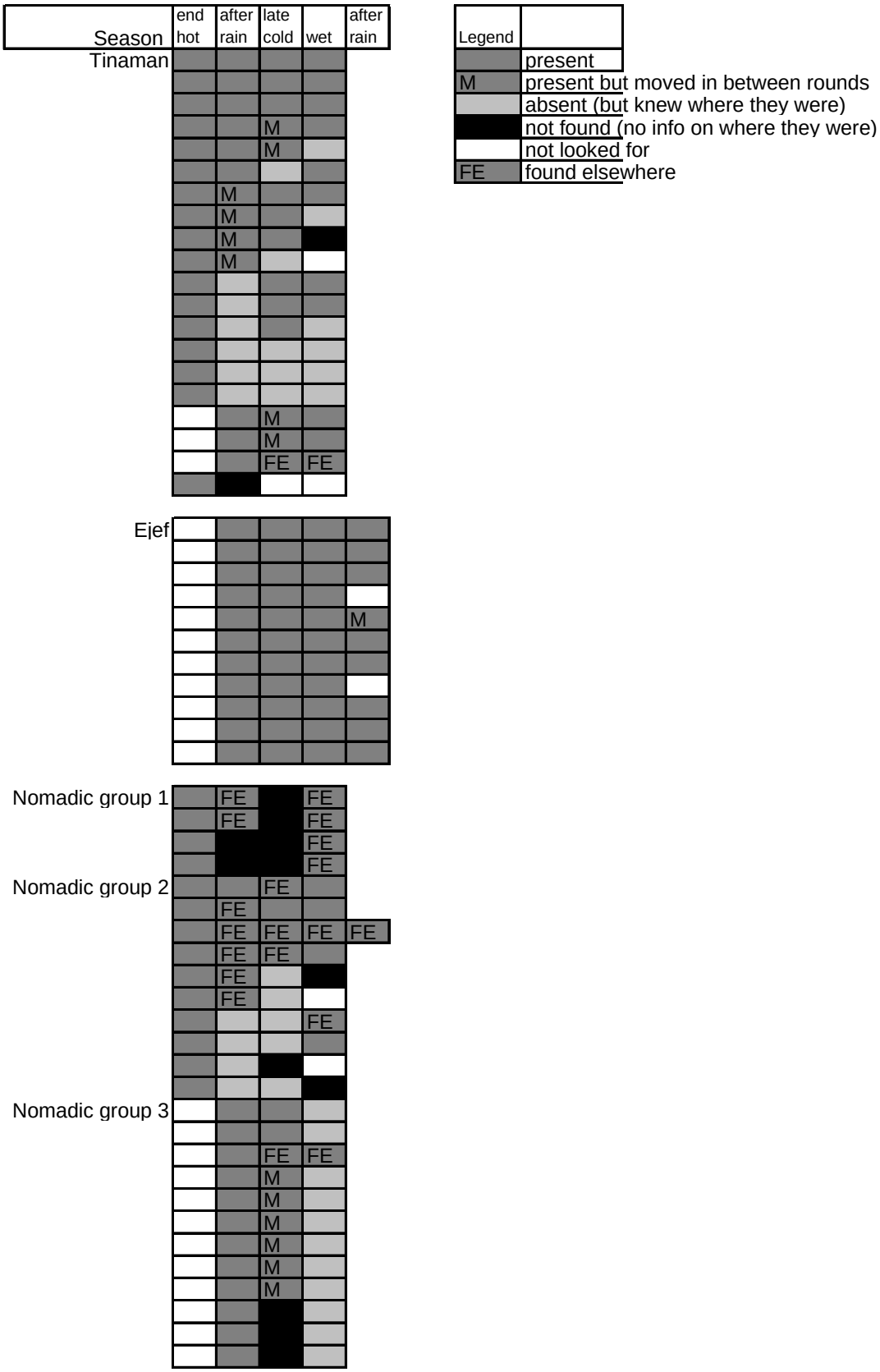
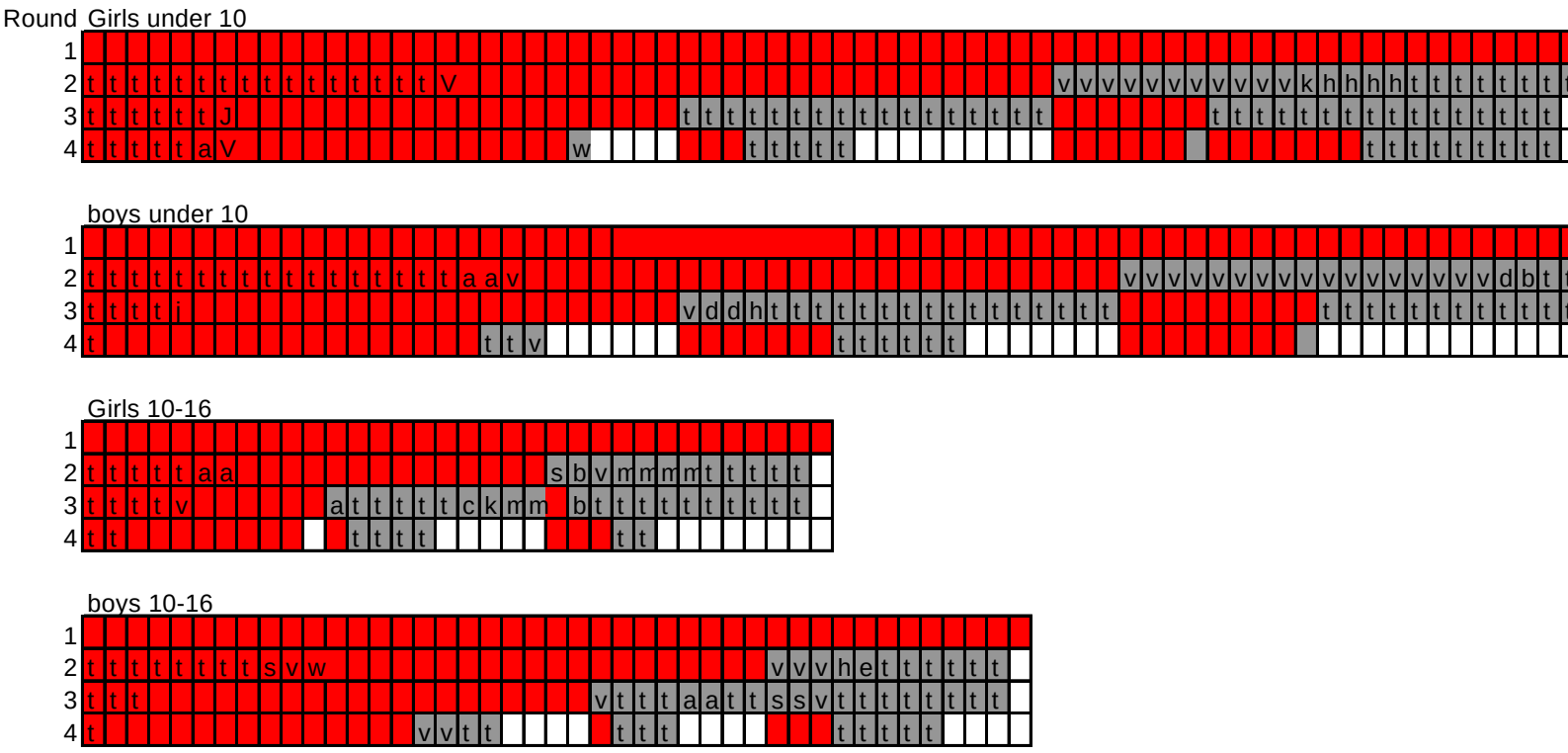


Figure 5: Individual level child mobility over a year (source MRS). All children present in round 1



movements in intervening rounds

- a agriculture
- b joined master/mistress (bella)
- c to parents to give birth
- d accompanied divorced mother
- e coranic school
- h moved house to another sedentary community
- j journey
- k changed household to live with different kin
- s school related movement
- t transhumance
- w work

present
absent
not found / not asked

NB: each column = 1 child