

## **Teachers for Rural Schools A challenge for Africa**

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This paper is based on country case studies done in conjunction with the World Bank in Lesotho, Malawi, Mozambique, Uganda and Tanzania, during 2005. It highlights the difficulties of ensuring good quality teachers in isolated rural schools, and considers the implications for:

- Teacher deployment policy
- Teacher Utilization, and
- Teacher management and supervision

African countries have made substantial progress towards widening access to primary education over the last decade. Regionally, the Gross Enrollment Rate (GER) increased from 78% in 1998, to 91% in 2002. However, enrollment has increased more rapidly in urban areas than in rural areas, and increasingly the majority of African children out of school are rural children.

Many factors contribute to lower educational participation in rural areas. On the demand side, rural children may be less interested in attending school. First, the opportunity costs of attending schools are often higher in rural areas (Lockheed and Verspoor, 1991, p158). Many rural households are dependent on their children for help at busy times of the agricultural year such as harvest time. Schools are usually designed to follow rigid schedule both in terms of time of the day and term dates, and often expect children to be in school during busy periods in the agricultural calendar (Taylor and Mulhall, 2001, p136).

Second, parents in rural areas often have a lower level of education, and may attach a lower value to schooling. The perceived lack of relevance of schooling may be enhanced by a rigid curriculum, often designed for a context (and sometimes culture) removed from that in rural areas. Rural schools rarely adapt the curriculum to make use of local examples, or to link the curriculum to local needs (Taylor and Mulhall, 2001).

Third, even where parents place a value on schooling, they may be less able to help their children learning. Parents in rural areas are less likely to be educated themselves, and so have less ability to provide support for their children. Some report that they are embarrassed to discuss school topics with their children, because of their own lack of knowledge. Further, homes in rural areas are often ill-equipped to meet the needs of children to study, and often lack facilities like electricity (Taylor and Mulhall, 2001).

In summary, children in rural areas may be considered more difficult to educate. They are likely to have less parental encouragement to go to school, and more alternative demands on their time, such as helping with agricultural tasks. When they attend school, they may find the curriculum less relevant to their lives, and find less support for their learning from the home environment.

On the supply side, governments may find it more difficult to supply quality education services in rural areas. Three factors combine to weaken the quality of teaching in rural areas. First, in many African countries, teachers prefer to teach in urban areas. As a result, rural schools may be left with empty posts, or have longer delays in filling posts. Even if posts are filled, rural schools may have fewer qualified teachers, if the better qualified teachers have a greater choice of jobs. Sometimes the rural schools have less experienced teachers, as the more experienced teachers find ways to move to the more desired schools.

Second, teachers in rural schools may teach less than their counterparts in urban areas. Any trip away from the rural area, to visit a doctor, to collect pay, to engage in in-service training, or to visit family may involve long journeys and involve missed school days. In addition, where teachers walk long distances to school, they may tend to start late, and finish early. As transport difficulties often make supervision visits from inspectors less frequent in isolated schools, there is little to prevent a gradual erosion of the school year.

Third, even when teachers are teaching, the quality of their work may be lower. Rural teachers often have less access to support services than their urban counterparts, and fewer opportunities to attend in-service courses. In some cases they also have difficulty in accessing books and materials. In addition, because the parents tend, in general, to be less educated, they are less likely to monitor the quality of teaching, or to take action if the teaching is of poor quality.

The combination of these demand-side and supply-side factors means that those children in rural areas are the most difficult to engage in education and also have lower quality educational provision. It is hardly surprising then, that rural areas show lower participation in education, and lower attainment. Addressing this disparity is a major challenge for education policy makers. Some action may be taken to address the demand-side issues. Parent perception of education might be enhanced through awareness-raising activities, and curricula could be modified and made more appropriate. However, it is clear that much of the solution lies in the supply-side, that is, in ensuring adequate numbers of appropriately trained, motivated and engaged teachers in rural schools.

### **Getting teachers to rural schools: deployment issues**

The problem of teachers is often considered as a problem of teacher numbers. While there is no doubt that many countries face challenges of teacher supply, there are equally serious challenges of teacher deployment. In many countries there are qualified teachers in urban areas who are unemployed, while here are unfilled posts in rural areas. This pattern of simultaneous surplus and shortage is strong evidence that the problem of teachers for rural schools will **not be solved simply by providing more teachers**. There is a need for policies that will ensure that the teacher reach the schools where they are needed.

**TABLE 1: SUMMARY OF RURAL-URBAN DIFFERENCE IN 5 COUNTRIES**

	<b>Mozambique</b>	<b>Lesotho</b>	<b>Malawi</b>	<b>Uganda</b>	<b>Tanzania</b>
Teacher Qualification	Significant differences between & within Provinces e.g. in Maputo city 8% are untrained, in Manica Province 58% are untrained	In lowlands 24% teachers are unqualified In mountains 51% unqualified	Data available do not suggest differences in rural-urban spread (more detailed categorization might change this)	Some – mainly rural and insecure areas have many vacancies and use untrained teachers	Better qualified teachers are found in urban areas e.g. Grade A teachers Dar Es Salaam 68% and Lindi 39%
PTR & PQTR	PTR in Maputo is 54, and Manica 67.  PQTR is 59 in Maputo, 162 in Manica.	Not much variation in PTR.  Greater variation in qualifications 51% of teachers unqualified in mountain areas, 24% in lowlands.	Average PTR rural 77 & urban 44 Even bigger differences in some remote zones e.g. Kalulu 139	Average PTR is 56	Average PTR 58, Dar es Salaam 53, Kigoma 74
Student Performance	While school exam results don't show differences, SACMEQ reading & maths results are lower in rural schools	Repetition rates higher and SACMEQ test results are lower in rural schools	SACMEQ results for reading and maths are lower in rural schools	SACMEQ results for reading and maths are lower in rural schools	SACMEQ results for reading and maths are lower in rural schools
Teacher Gender	Approx 80% of teachers are female. Female teachers are reluctant to accept postings to rural schools	Almost 80% of teachers are female, even in mountain areas they account for 70%	82% of urban teachers are female, 31% rural teachers	Difficult to attract/retain females at remote rural schools	Concentration of female teachers in urban schools, scarcity in rural schools

Many countries report that teachers express a strong preference for urban postings. In Ghana, for example, over 80% of teachers said they preferred to teach in urban schools (Akyeampong and Lewin, 2002, p346). There are a number of rational reasons why teachers may prefer urban postings. One of the concerns about working in rural areas is that the quality of life may not be as good. Teachers have expressed concerns about the quality of accommodation (Akyeampong and Stephens, 2002, p269-270), the classroom facilities, the school resources and the access to leisure activities (Towse et al, 2002, p645).

Health concerns are a second major issue. Teachers may perceive that living in rural areas involves a greater risk of disease (Akyeampong and Stephens, 2002, p269-270), and less access to healthcare (Towse et al, 2002, p645).

Teachers may also see rural areas as offering fewer opportunities for professional advancement. Urban areas offer easier access to further education (Hedges, 2000). In addition, teachers in rural areas are less likely to have opportunities to engage other developmental activities, or in national consultation or representative organisations. Teachers in rural areas may even find it more difficult to secure their entitlements from regional educational administrations, sometimes to the extent of having to put up with obstacles or corruption by officials.

The problem is further exacerbated where the majority of student teachers come from a different background. In Ghana, teachers tend to come from a higher socio-economic background than average for the country as a whole (Akyeampong and Stephens, 2002) and to be disproportionately from urban areas. Hedges (2002, p364) describes their reluctance to accept a rural position:

*There is a profound fear among newly trained teachers with a modern individualistic outlook that if you spend too much time in an isolated village without access to further education, you become 'a village man', a term which strongly conveys the perceived ignorance of rural dwellers in the eyes of some urban educated Ghanaians*

### **Gender**

The deployment patterns also have implications for gender equity. Across sub-Saharan Africa, the enrolment and retention of girls in school is lower than that of boys. The under-representation of girls tends to be greatest in rural areas and among the most disadvantaged communities. While a number of measures can be shown to have an impact on the retention of girls in school, one of the important factors is the presence of female teachers in the school (Bernard, 2002). The presence of female teachers in a school can help to make the school environment a safer place for girls. Many girls in Africa are forced to drop out of schools because school administrators are insensitive to gender issues, including sexual abuse and intimidation (PANA, 2003). In addition, the presence of females in positions of responsibility and leadership in schools is an important factor in creating gender role models.

Female teachers may be even less willing to accept a rural posting than their male counterparts, and rural areas may have fewer female teachers than urban areas (Gottelmann-Duret et al, 1998, p21-22). In some cases posting single women to unfamiliar areas may cause cultural difficulties, and may even be unsafe (Rust and Dalin, 1990; VSO, 2002, p34). For unmarried women, posting to an isolated rural area may also be seen to limit marriage prospects (Hedges, 2000). In some countries, such as Ghana, they are not posted to rural areas as a matter of policy (Hedges, 2002, p358). For married women, a rural posting may mean separation from her family, as the husband may not move for cultural or economic reasons (Gaynor 1998). Where women have been posted

to rural areas they *may come to see themselves as having been treated unfairly by the system and thus seek early transfers* (Hedges, 2002, p358).

### ***HIV/AIDS***

Although HIV/AIDS is a threat in all areas, it is becoming a greater threat in rural areas than in cities. *More than two thirds of the population of the 25 most-affected African countries live in rural areas* (FAO, 2005). Furthermore, *information and health services are less available in rural areas than in cities. Rural people are therefore less likely to know how to protect themselves from HIV and, if they fall ill, less likely to get care* (FAO, 2005).

The prevalence of AIDS in rural areas and the lack of medical facilities has made rural postings even less attractive to teachers (Smith and McDonagh, 2003, p35). The importance of HIV for teachers should not be underestimated. Across Africa, an estimated 260,000 teachers, 9.4% of the total employed in 1999, could die of AIDS-related illnesses over the next decade (Bennell, Hyde and Swainson, 2002). In South Africa, HIV testing of over 17,000 teachers revealed that 12.7% were HIV positive, and the prevalence rates were higher among rural teachers and among younger and less experienced teachers (CSA, 2005).

In some cases ill teachers are posted to urban centres to allow them access to medical services. Although they do little to enhance the teaching in urban areas, their absence from the rural areas further enhances the rural urban divide (Kelly, 2000, p68). In Ghana, for example, poor health is the most common reason given for early transfer (Hedges 2002). In Uganda, the policy is that teachers with health problems should be posted to schools near to medical facilities. Mozambique is considering a similar policy.

### ***Language and ethnic groups***

Deployment is further complicated where there are multiple ethnic or linguistic groups within a country. Teachers may be reluctant to locate in an area where the first language is different from their own. In Malawi, student teachers belong to a variety of tribes and have a variety of first languages, which can pose problems for their deployment in areas with a different dominant language group. Similarly in Ghana first language is not a criterion in teacher posting but may be very relevant to the experience of teachers (Coultas and Lewin, 2002). Where a teacher is not fluent in the language spoken locally, he/she may be isolated, professionally and socially in the area (Brodie et al, 2002).

Countries deal with the challenge of deployment in different ways, as illustrated by the cases of Mozambique, Malawi and Lesotho.

### ***Teacher Deployment in Mozambique***

In Mozambique, teacher deployment is done at provincial level, and each province trains, recruits and deploys its own teachers. The general principle is that the graduates from each provincial teacher training college are required to teach in that province.

Recruitment of newly qualified teachers is normally automatic, but in some cases, provinces have had insufficient funds to recruit all of the newly qualified teachers.

Teacher training capacity is unevenly distributed. Maputo City district trains more teachers than it requires, and there is a system that allows teachers to volunteer for transfer to another province. However, only 107 teachers agreed to transfer in 2004. This imbalance is reflected in striking differences between the provinces. In Maputo city, only 8% of EP1 (early primary) teachers were untrained, compared with 62% in Niassa. Rural provinces have both a higher pupil teacher ratio (PTR), and a higher ratio of pupils to qualified teachers (PQTR). This reflects a greater number of posts unfilled, and a greater proportion of untrained teacher in rural areas.

**TABLE 2: TEACHERS AND TRAINING BY PROVINCE (2004)<sup>1</sup>**

	<b>Pupils</b>	<b>Trained teachers</b>	<b>Total teachers</b>	<b>% untrained</b>	<b>PTR</b>	<b>PQTR</b>
Cabo Delgado	242,105	1,663	3,036	45	80	146
Gaza	233,633	1,751	3,939	56	59	133
Inhambane	241,818	1,931	3,705	48	65	125
Manica	223,738	1,382	3,318	58	67	162
Maputo Cidade	164,388	2,782	3,022	8	54	59
Maputo Província	192,614	2,174	3,474	37	55	89
Nampula	487,989	3,998	7,189	44	68	122
Niassa	160,228	1,251	3,262	62	49	128
Sofala	242,808	2,304	3,070	25	79	105
Tete	251,621	2,183	3,924	44	64	115
Zambézia	630,622	3,929	6,286	37	100	161
<b>Total</b>	<b>3,071,564</b>	<b>25,348</b>	<b>44,225</b>	<b>44</b>	<b>69</b>	<b>121</b>

Further teacher deployment issues arise **within** provinces. Newly qualified teachers are assigned to schools, based on needs identified at the provincial level. Many teachers are happy to work in provincial towns, but reluctant to work in the more isolated areas within a province. Ministry officials report that female teachers, in particular, are unwilling to accept rural posts. Teachers assigned to isolated schools frequently refuse to take up the posting. Teachers who refuse a posting are not employed, but often later apply for other posts that become vacant.

It is clear that the current deployment system is not working effectively. Although the system is designed to ensure an adequate supply in each province, there are inequalities in distribution both between provinces and within provinces. The logical distribution of teachers within provinces is undermined by an inability to enforce deployment. Teachers

<sup>1</sup> Ministry of Education Mozambique, Annual School Survey 2004

who are given undesirable deployments can refuse the post, and can later apply for, and get, posts in urban areas.

### *Teacher deployment in Malawi*

Since the introduction of Free Primary Education in 1994, teacher recruitment has been done by hiring untrained temporary teachers, who are later trained through the MIITEP program.<sup>2</sup> This recruitment was done centrally, and the teachers were deployed to schools on the basis of needs. Candidates are not recruited for specific locations, and there were no specific recruitment policies to select teachers for rural areas. There has been high demand for places in teacher training, and the entry qualifications have been rising.

Under the MIITEP system, the deployment of teachers was done at the point of recruitment. The intention was to deploy teachers to the rural schools where the need was greatest. However, many teachers, particularly female teachers, found reasons to argue that they should not be sent to rural areas. For female teachers, they often made the argument based on marriage. If a woman's husband is located in an urban area, the ministry will not normally force the woman to leave the area.

Once the teachers were deployed, teachers were able to request transfers to other areas. For female teachers, transfer was often requested on the basis of marriage, and there were even some reports of women faking a marriage in order to get a transfer. It is rare to find female teachers in rural areas, unless they are with their husbands (if, for example, both are teachers). Male teachers were sometimes able to get a transfer on the basis of doing further study, and so needing access to electricity. Teacher illness is another major justification for movement. In Malawi, ARVs are available free to people with HIV, but only a limited number of hospitals can dispense them, or even diagnose HIV. There is no formal arrangement to allow sick teachers to move to areas near hospitals. However for compassionate reasons district education managers often allow a transfer.

Overall there is a good deal of teacher movement. In 2004 over 4,000 teachers, or 10% of the teacher population, transferred to another school. Most movement is initiated by the teachers themselves. Teachers who want to move may face long delays, but may eventually get to move where they want. Teachers who have a lot of influence, or who have pressing humanitarian reasons to move (such as marriage or illness), may be able to get redeployment to urban areas.

In some cases teachers have been able to get a transfer, even where there is no vacancy in the school to which they are moving. As a result, some urban schools are significantly over-staffed and teachers have relatively light workloads. As there is constant teacher-initiated movement, and no regular supply of new teachers, there is an oversupply of teachers in the desirable areas, and a shortage in the less desirable areas. In one extreme

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<sup>2</sup> This process will change with the re-introduction of a college-based teacher training programme in September 2005. Under this system, teachers will be drawn in to colleges, and once they have completed the first year of training, they will be deployed to schools.

example, a school in Blantyre has 20 classrooms and 111 teachers, of whom 90 are female.

It is acknowledged that the teacher deployment system is not functioning equitably, and teacher pupil ratios vary widely between urban and rural areas. While the rural areas average 77 pupils per teacher, the urban areas have an average of 44.

Female teachers are highly over-represented in urban areas, possibly reflecting the ability to transfer on the grounds of husband's location. In urban areas 82% of the teachers are female, compared with only 31% of teachers in rural areas. However, there is little to suggest that teachers in rural areas are less educated.

**TABLE 3: SCHOOLS, TEACHERS AND PTR IN MALAWI<sup>3</sup>**

	<b>Rural</b>	<b>Urban</b>	<b>Total</b>
No of schools	4,932	171	5,103
Pupils	2,896,356	270,430	3,166,788
<b>Teachers</b>			
Male	26,002	1,100	27,102
Female	11,803	5,047	16,850
Total	37,805	6,147	43,952
% female	31	82	38
PTR	77	44	72

These national data are based on a general classification of schools as either rural or urban. However, rural schools close to urban centres are much more attractive than isolated rural schools. Data for six zones (3 close to population centres and 3 remote rural areas) shows that the remote rural areas had much higher pupil teacher ratios.

**TABLE 4: SCHOOL DATA FOR 6 SELECTED RURAL ZONES IN MALAWI**

<b>Name</b>	<b>Comment</b>	<b>Schools</b>	<b>Pupils</b>	<b>Ave. school size</b>	<b>Teachers</b>	<b>PTR</b>
Ching'ombe	Near Lilongwe	15	15,387	1,026	355	43
Songani	Near Zomba	21	18,574	884	321	58
Chikala	Near Zomba	16	13,900	869	175	79
St Pauls, Zomba	Remote rural	6	3,955	659	28	141
Kalulu, Nsanje	Remote rural	8	5,956	745	43	139
Chilipa, Mangochi	Remote rural	22	11,910	541	102	117

<sup>3</sup> Education Statistics 2004, p4

### ***Teacher deployment in Lesotho***

Lesotho has some very mountainous areas where travel is difficult, infrastructure is poor and the climate inhospitable. Given the dispersed population, schools in mountain areas are generally smaller than those in urban areas.

Teacher deployment is based on local hiring of teachers. The Ministry “grants” teachers to schools in response to school population and budget considerations. Once the school is granted a post, the school management committee can select the teacher. Once the teacher is identified, the papers are sent to the Teacher Service Commission (TSC) for ratification, and ultimate payment of salaries by the government.

This local hire system has a number of implications. Teachers are not sent to schools. Instead they apply to schools where they would be willing to work. Schools do not have a problem with teachers refusing postings – individuals unwilling to work in rural areas do not apply for posts in those areas.

The local hire system is more open to local influence than a central deployment system. Although posts are advertised, many schools have a person in mind before they begin the selection process. In some cases this results in a local person being appointed in preference to an outsider. There have even been cases of qualified teachers being rejected by communities wishing to hire a local (but unqualified) teacher.

One effect of this system is that most teaching posts are filled, and there is relatively little variation in pupil teacher ratio between rural and urban areas. However, qualified teachers can more easily compete for the jobs in urban areas, and so many of the rural schools recruit unqualified teachers. The school census data reveals that only 24% of teachers in lowland areas are unqualified, compared with 51% in mountain areas.

**TABLE 5: TEACHER QUALIFICATION IN LESOTHO**

ECOLOGICAL ZONES	% UNQUALIFIED		
	FEMALE	MALE	TOTAL
Lowlands	21	39	24
Foothills	35	58	39
Mountain	47	60	51
Senqu River Valley	26	59	35

These general figures mask even greater shortages of qualified teachers in the most isolated schools. One District Resource Teacher<sup>4</sup> outlined the teacher supply in nine rural schools for which he has responsibility. As shown in the table below, less than one third of the teachers in these schools were qualified. These isolated schools had typically only one qualified teacher (the principal), and two of the schools had no qualified teacher at all.

<sup>4</sup> Source : Mr. Mofota Phatela, District Resource Teacher, Qacha’s Nek.

**TABLE 6: TEACHERS IN NINE RURAL SCHOOLS IN LESOTHO**

School	Pupils	Qualified teachers (including principal)	Unqualified teachers	Volunteer teachers (unpaid)	PTR	Pupils per qualified teacher
A	70	1	0	3	70	70
B	278	1	4	0	56	278
C	292	1	3	0	73	292
D	365	4	4	0	46	91
E	123	1	4	0	25	123
F	382	1	5	0	64	382
G	100	0	4	0	25	INF
H	68	0	2	0	34	INF
I	250	2	1	0	83	125
Total	1,928	11	27	3	51	175

A second effect of this system is that it has encouraged to growth of volunteer teachers in rural schools. These are typically local people (usually girls) with a secondary education but no job. They volunteer to teach for free in the local school, in the hope that when a position arises, they will get the job. While this free labor has been helpful to schools, there have been some cases where tensions arose when a job did not materialize, or was awarded to another person.

A further difficulty with the system is that the ministry finds it difficult to transfer teachers from schools where numbers are falling. The construction of new schools in rural areas is causing a fall in numbers in some of the older schools. Where a school is perceived to be of poor quality, parents may move their children to nearby schools, or withdraw them altogether, causing falling enrolment in some schools. School authorities are reluctant to allow a teacher to be transferred out of a school. In particular church authorities may be sensitive about erosion of their schools and resist teacher transfer.

### ***Teacher deployment systems***

These cases are illustrative of the main methods of teacher deployment. In practice, two main systems exist, either deployment by a central authority, or deployment by a “market system” (Lewin, 2000, p30). In Mozambique and Malawi, deployment is centrally planned. In Malawi, this is done at national level, and in Mozambique it is done at provincial level. In Lesotho there is a market system in operation where schools are free to select their own teachers, and teachers select the schools to which they apply.

**Central planning of deployment.** Centralized deployment has been a long-standing model in many countries in sub-Saharan Africa, and is widely believed to allow rational

deployment of teachers (Penrose, 1998). Central planning has the advantage of distance from local pressures, and can be more easily made fair and transparent. However, highly centralized systems are dependent on the quality of information they receive from schools, and tend to suffer from congested decision making and inattention to the individual needs of education staff (Gottelmann-Duret and Hogan, 1998; Rust and Dalin, 1990).

The major weakness of the centralized systems is that they are often undermined in practice by an inability to implement rational deployment. Teachers may circumvent Ministry of Education's posting policy by claiming fictitious health problems, exploiting poor record keeping, and or just failing to take their assigned posting (Hedges, 2000). Teachers who fail to take up a rural posting present a difficulty for policy makers. If they are later allowed to take up a desirable post, they undermine the posting system. If they are not, then the system loses the resource of a trained teacher.

#### **Example**

If two teachers, A and B, would like to work in an urban area, but are posted to a rural area. Teacher A accepts the post and moves to the rural area. B refuses the post, and remains unemployed. Later, a position appears in a desirable location, and both teachers apply. This presents a difficult choice. If the post is given to A, the rural post becomes vacant, and is difficult to fill. If the post is given to B, then B has achieved the goal more quickly than A by refusing the rural post. The message is observed by others, and any teacher who can afford a period of unemployment quickly understands that the fastest way to the desired post is by rejecting offers of rural postings.

The inability to implement planned deployment has serious consequences. In Ghana, a recent survey of 262 newly trained teachers posted to four rural districts, showed that 115 failed to arrive at their teaching post. This widespread failure to accept rural posts undermines the rational posting system (Hedges, 2000), and contributes to a lack of conviction among administrators that significant progress can be made in addressing patterns of unbalanced deployment (Gottelmann-Duret et al, 1998).

Many countries have considered decentralizing the teacher hiring process to a local level. In terms of teacher deployment, decentralisation brings both benefits and risks. The more local the system, the more likely it is to be able to keep in touch with the needs of the schools, to respond quickly and flexibly to needs. However, a local structure may also open up a greater possibility of undue influence being exerted by powerful individuals on deployment decisions, especially in countries with a weak administrative capacity at district and local levels (Hallak, 1990). In many instances in Africa, administrators operating at the local level are exposed to the pressure of influential personalities in local communities, and it is not unusual to see their decisions being biased. Improved systems of 'checks and balances' are needed to ensure countrywide equity, justice and efficiency in teacher deployment (Gottelmann-Duret, 1998, p43).

**The market system.** In the market system, teachers are not sent to schools, but apply for posts in specific schools. This system removes the burden of deploying teachers from the central authorities. In effect, teachers deploy themselves by searching for jobs. It gives

each school more autonomy in selecting their teachers. Schools are more likely to select teachers who will accept the position, and often recruit local people. However, “market effects” occur, and the most desirable teachers (best qualified), tend to get the most desirable jobs. In Lesotho the practical effect of the market system is that most schools are able to fill their teaching posts, but that more of the teachers in isolated schools have lower qualifications.

### ***Strategies to redress deployment imbalances***

Policy makers have tried a number of strategies to redress the imbalances in teacher deployment. The main strategies can be categorized as:

- Incentives for teachers locating in rural areas
- Forced transfer of teachers
- Targeted recruitment

**Incentives – financial bonus.** Some countries have attempted to make working in rural areas more attractive through the use of incentives. In some cases these may be financial incentives, in the form of a hardship allowance, travel allowance, or subsidised housing. In other areas the incentives may be non-monetary, including, for example, special study leave or better training opportunities (Gaynor, 1998, p17; Craig, Kraft & Plessis, 1998).

In Mozambique, there is a system of financial bonuses for teachers who locate in rural areas. Schools are classified into four location categories, ranging from urban schools to the most isolated schools, and teachers are paid a salary bonus depending on the location of the school. Although the bonus payments appear attractive, they are weakened by two factors: First, the payment depends on both location and on teacher qualification. For the teachers with low qualifications (the bulk of primary teachers) there is no bonus at all. For teachers with a mid-level qualification (N3, IMAP qualification), the difference between teaching in a provincial town and a remote school is relatively small (only 14% of salary). Second, teachers who teach two shifts receive a bonus of 60% of their basic salary. Two shift schools are found more frequently in the areas of a high population density, and so teachers in towns and cities are more likely to have the option of additional earnings from this source.

In Lesotho there is a hardship allowance paid as a flat fee of M275 per month. This is equivalent to 20% of salary for an unqualified teacher, but only 10% of salary for a teacher with a diploma qualification. This is generally acknowledged to be too small to encourage the more highly qualified teachers to locate in remote areas. As one DRT explained, even the cost of travel to collect the monthly cheque, and the cost of commodities, especially fuel, could outweigh the value of this bonus. In addition, the hardship allowance is determined by very general classifications of schools. Teachers in remote rural schools in the lowlands do not receive the allowance, while teachers in towns in mountain districts do.

**TABLE 7: INCENTIVES TO ENCOURAGE RURAL LOCATION**

	<b>Mozambique</b>	<b>Lesotho</b>	<b>Malawi</b>	<b>Uganda</b>	<b>Tanzania</b>
Rural Area	Bonus payments up	A flat bonus of 275	No incentives	In 2001, introduced a	None at present – used

Incentives	to 100% of salary. But only to highly qualified teachers. Most primary teachers do not get any additional payment to move to rural areas.	Maloti (47 USD) per month to locate in a mountain area.	currently for locating in rural areas, possibilities being considered EMIS data shows strong correlation between housing & female teachers	hardship allowance of 20% of salary for 'hard-to-reach' areas. Only qualified teachers are eligible There have been difficulties in deciding which are hard to reach schools.	to have one in the 80s but abolished in 90s. PEDP stated priority to rural teacher housing, but in practice not implemented
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These cases highlight two general lessons concerning the use of incentives. First, the incentives need to be substantial to outweigh the social and economic costs of living in an isolated area. Second, incentive systems require a fair system of classification of schools. General classifications may provide bonuses to teachers working in small towns, while doing relatively little to increase the teacher supply in the most isolated schools.

Finally, incentive schemes can be outweighed by counter-incentives from urban schools. In Mozambique, urban schools are more likely to offer two-shift teaching, which carries a salary bonus. In other countries, schools in richer communities are able to raise money from parents through voluntary contributions or parent teacher associations. These extra resources can be used to provide additional benefits, or even additional salary, for teachers.

**Incentives - housing.** A second major incentive for teachers to locate in rural areas is the provision of teacher housing. Where teachers cannot live near the school, they are likely to spend a lot of time traveling, often to the detriment of their school work. Housing is particularly important for female teachers. In Malawi, the EMIS data reveals a strong association between the availability of housing in an area and the presence of female teachers in the school. Similarly in Uganda, a recent Study on Primary School Teachers Attrition considered provision of housing to be a key factor in ensuring teacher retention especially in rural areas.<sup>5</sup> Currently 15% of the School Facilities Grants (SFG) is allocated to the construction of teachers' houses.

In Mozambique, the Ministry does not normally provide housing although the practice has been to put a director's house at some schools. In addition, some NGO's and even local communities, have constructed teacher housing in an attempt to make rural locations more attractive. In Lesotho too, teacher housing is not normally provided, but some NGOs and community groups have provided accommodation.

Although good quality housing near the school can be a significant incentive for teachers, and particularly for female teachers, it can be expensive to provide, especially if the government is also responsible for ongoing maintenance of the property. There may also be difficulties in repossessing a house for use by a new teacher, particularly where this would leave a family in hardship as a result of teacher illness or death.

<sup>5</sup> The Report of the Study of the Problem of Primary School Teacher Attrition with Special Focus on Early Retirement, Resignation and Abscondment of Teachers from the Teaching Service (2004).

**Forced deployment.** There have also been attempts to address the issue by forcing teachers to relocate to rural areas (Gottelmann-Duret et al, 1998, p39). While this strategy has little financial cost, it may damage teacher morale and lead to a high turnover of staff. In South Africa, an effort to force the redeployment of teachers to poorer, rural areas was unsuccessful. South Africa's predominately female teaching force was not mobile enough to respond to school staffing needs. When strongly encouraged to relocate, large numbers of key science and math teachers left teaching (Garson, 1998). As a consequence, there was a significant drop in the number of school leavers choosing to apply to teacher training colleges because teaching was seen as an embattled profession, "where one is likely to be redeployed or moved" (Samuel, 2002, p408-9).

In some countries, such as Malawi and Zambia, forced relocation to rural areas is sometimes used as a punishment for teachers who misbehave. While this has a certain sense of natural justice, it runs the risk of locating the teachers who have caused trouble in the schools that are furthest from supervision (VSO, 2002, p30).

Some countries have used models where deployment to rural areas is related to career progression. Typically, these require that newly trained teachers work for a number of years in a rural area, or that teachers seeking promotion work for a period in a rural area (Gottelmann-Duret et al, 1998, p39). Successful implementation of such systems depends on careful management. Even if successful, this would result in a concentration of the least experienced teachers in the rural areas. There is some evidence that young, newly qualified teachers have more difficulties in rural areas, and achieve poorer results (Daun, 1997). Despite these difficulties, systems where a defined period in a rural area is required may be an effective strategy for getting qualified teachers in rural schools. Teachers may be more likely to accept a rural post if they see it as temporary, and as a path to a more desirable job.

**Targeted recruitment.** An alternative strategy may be to seek to recruit student teachers from within each region, in the hope that personal history and family connections will entice them to return to teach in their home area after they attain their teacher certification. The presumption is that those individuals will have family roots in these rural areas and be more willing to return and remain in these rural settings (Craig, Kraft and Plessis, 1998).

One of the attractions of this approach is that if teachers become established within their own community, they may gain extra benefits from the proximity of relatives, which may help to ensure long term stability. Working close to ones' extended family may provide some level of financial support and subsidy (Black, Esanu, Mugambe, Namwadda, Walugembe, 1999). However some countries, such as Malawi, report that teachers do not want to work in their own village, because there may be too many demands on them from family. Some people from rural areas would prefer to be in their home district, but not actually in their home village.

It should be noted that the assumption that teachers recruited from a rural area would want to return to their own communities has been challenged by a number of researchers (Rust and Dalin, 1990; Azam, 2001). Educated members of a disadvantaged minority group may view their education as a means of social mobility, and may have no desire to remain in the community once qualified (Azam, 2001). In Lesotho, for example, it was reported that *“it is hard to attract people to rural areas, as the conditions are difficult... Young people, even those from rural areas, want to come down from the highlands as soon as they can. Even those who come on study leave, try hard to stay in Maseru”*.

The targeted recruitment strategy is most frequently used to recruit teachers from specific geographical regions or ethnic-linguistic groups. However, it may also be possible to focus teacher recruitment on teachers from particular socio-economic backgrounds. Hedges (2002, p360) raises an interesting possibility in reporting that teachers from poorer backgrounds were more likely to value the relative security of the teaching profession and take up their postings.

However, this strategy often involves a trade-off between entry qualifications for rural roots (Lewin, 2002). If it is necessary to adjust the teacher recruitment system to favor teachers from a particular area, and if the system was a merit based system, then the adjustment entails recruiting teacher of lower quality than before.

**Alternative models.** Less conventional solutions have been attempted in some countries. In Ghana, a policy that involved posting newly qualified teachers in pairs seems to work well. *Those posted with another teacher, ... seemed to draw strength from the ready-made friendship, especially in hostile communities, even if they had not known each other beforehand* (Hedges, 2002, p360).

Another strategy in Ghana involved linking rural deployment with a teacher education outreach program, with the aim of helping female teachers to feel safe and have a greater sense of control over their deployment (Hedges, 2000).

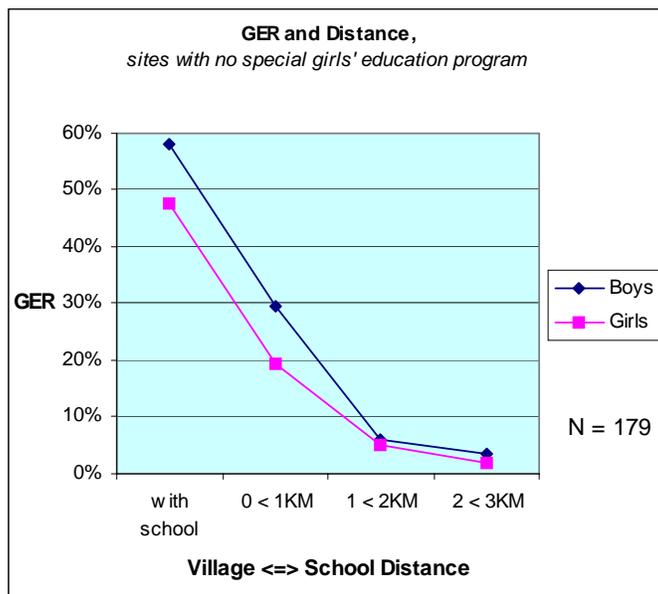
## Teacher Utilization

*The single most important determinant of primary school enrollment is the proximity of a school to primary-age children. .... Studies have repeatedly shown that distance from school is a critical factor in determining whether or not children, especially girls, attend school* (Lockheed and Verspoor, 1991, p146).

Planners often choose school locations using a theoretical maximum walking distance. In Lesotho, for example, the aim is to have a school within 3 km of each child. In Malawi the expected walking distance is 5km. However there is increasing evidence that even a walk of 3km may be a major barrier to attendance. A school mapping study in Chad carried out as part of the Rural Access Initiative (World Bank, 2004) showed that enrolment fell off very rapidly with the distance to school. In fact, when the school was one kilometre from the village, enrolment was less than half that where the school was

located within the village. Children in Chad may be particularly distance-sensitive because of the dispersed population and traditional rivalries between villages. However recent data from Lesotho suggests that 69% of the children who had never been to school lived more than 30 minutes from a school (World Bank, 2005).

**GER and distance from school, in areas without the special incentive for girls (RAI, World Bank, 2004)**



Provision of schools near to children’s homes involves the provision of a greater number of small schools. In Mozambique, average school sizes in rural areas are 100-200 students, compared with an average of 1,600 in Maputo city. Small schools have the opportunity to engage more closely with the community (Sigsworth and Solstad, 2001). Location close to the community can be used to enhance enrolment and attendance. In rural Ethiopia, for example a study found that home visits by teachers were an important factor in raising enrollment.

Unfortunately, small schools present challenges for efficient teacher utilization. Where there is significant dropout, large schools can adjust the number of classes in each grade to maintain a consistent pupil teacher ratio. Where the school is smaller, and has only one teacher for each grade, the dropout pattern may result in large numbers in the early grades, and low numbers in the later years.

**Example:**

The table below shows two schools. School A has 465 pupils, with smaller numbers in the older grades. School B has half the number of pupils, and the same pattern of dropout. School A arranges ten teachers to allow roughly equal class sizes. School B has only one teacher for each class, and, despite a more favourable pupil teacher ratio, has a less equitable spread of PTR.

School A	Pupils		School B	Pupils	
Grade 1	150	3 classes of 50	Grade 1	75	1 class of 75

Grade 2	110	2 classes of 55	Grade 2	55	1 class of 55
Grade 3	80	2 classes of 40	Grade 3	40	1 class of 40
Grade 4	55	1 class of 55	Grade 4	28	1 class of 28
Grade 5	40	1 class of 40	Grade 5	20	1 class of 20
Grade 6	30	1 class of 30	Grade 6	15	1 class of 15
Total	465	10 teachers. PTR 46 Largest class 55 Smallest 30	Total	233	6 teachers. PTR of 38 Largest class 75 Smallest 15.

This inherent difficulty with small schools is compounded by other factors.

- First, as noted earlier, rural schools are more likely to have problems in filling teaching positions, and so tend to have a higher overall pupil teacher ratio, and more unqualified teachers.
- Second, experienced teachers may use their seniority to gain deployment to the smallest classes, leaving the largest classes to the least experienced and least qualified teachers. To counter this, in Lesotho, ministry guidelines suggest that the most experienced teachers be assigned to the lower classes, but this is not always followed in practice.
- Third, the rate of dropout in rural schools may be higher than in urban schools, leaving even smaller classes in the higher grades, and greater numbers in the lower grades.
- Fourth, the internal deployment of teachers within schools is complicated by teacher specialisation. In many countries primary teachers are trained either for specific grades (as in Malawi), or for specific subjects (as in Mozambique).

### ***Multigrade teaching***

The figures above illustrate the difficulties of efficient teacher deployment in a “full size” school (i.e. one teacher for each grade). However, even schools on this scale may be too large to serve the needs of rural communities. A 1979 study calculated that the smallest community that could support a full size school (grades 1-7) was 980 people, and even that was assuming a pupil teacher ratio of 35 and 100% enrolment. Yet in countries like Sierra Leone, more than 65% of the population live in settlements of less than 900 people (Lockheed and Verspoor, 1991, p158). Clearly, the model of “full size” schools cannot be an efficient solution to provision of rural education for areas of dispersed settlement.

Smaller schools can be provided using a variety of strategies, including incomplete schools, bi-annual intake, and multigrade teaching. In the six countries studied, bi-annual intake is not practiced, as it is believed that parents will be unwilling to delay enrollment. However, incomplete schools, and multigrade teaching are widely practiced. Teacher absenteeism and illness further increase the use of multigrade, as schools frequently combine classes to cover for absent colleagues.

Multigrade teaching normally involves one teacher teaching two grades at the same time. In some cases more than two grades are mixed. In some very remote areas, the viable model for provision of schooling may be the one-teacher school (the most extreme form of multigrade). In Uganda, school attendance is very low in the Karamoja region, despite

the construction of schools. In response, the government has introduced a programme named Alternative Basic Education for Karamoja (ABEK) where children study under trees wherever they take animals to graze, supervised by a single teacher in each school.

**How multigrade works.** Experienced multigrade teachers use a variety of strategies to manage multiple groups of students at the same time:

- One strategy is to use some of the older children as teaching assistants, drawing them in to helping their younger classmates.
- A second strategy is to make small modifications in the sequencing of the curriculum, to allow whole class teaching. Thus if a teacher is dealing with second and third grades, (s)he can teach a story from the third grade curriculum to both groups, and the following year teach the story from the second grade curriculum. In this way all children will learn both stories as they pass through the system, but the sequence is altered to allow easier whole-class teaching. This depends, of course, on the cooperation of inspectors and end of year examinations.
- A third strategy is to use teaching materials to allow one group to work alone, while the teacher works with the other group.

Observation of experienced multigrade teachers indicates that they use a mix of all of these strategies and move seamlessly between them throughout the day (Pridmore 2004). So the class might work together on a song or story, then divide for work on mathematics, and later the older children might help the younger ones with reading. However, the successful operation of this blend of methods is dependant on teachers who are skilled in handling multigrade classes, the availability of teaching materials, and the flexibility within the curriculum to make minor adjustments.

The use of multigrade teaching without additional training and teaching materials is likely to put additional strain on teachers, and reduce the quality of learning. As one study noted:

*Multigrade teaching may require more work than single-grade instruction. Demands on teacher resources, both cognitive and emotional, are greater. Curriculum design and organization requires attentive preparation and greater coordination. This is particularly the case if teachers do not have access to specialized materials, such as self-instructional textbooks, to support their preparation. Motivating students and maintaining their concentration is harder. Teachers are responsible for more subjects and cannot repeat lessons from year to year (Benveniste and McEwan, 2000, p42).*

**Quality of multigrade.** Multigrade teaching, is widely used in OECD countries, and appears to offer similar quality to conventional “monograde” configurations. Some have even argued that it may have advantages over monograde teaching, as it allows for interactions with children of different ages (Sigsworth and Solstad, 2001). However, it is often not perceived to be a desirable alternative to singlegrade teaching in most developing countries (Benveniste and McEwan, 2000, p40).

One successful model of the use of multigrade in a developing country is provided by Escuela Nueva in Columbia. After an initial period, it became clear that the approach had “taken root”. By 1987, over 89% of teachers preferred *Escuela Nueva* over traditional rural schools, despite the fact that only 45 per cent had voluntarily affiliated themselves to the program (Rojas and Castillo 1988, in Benveniste and McEwan, 2000, p41).

In Uganda a pilot project experimenting with multigrade teaching is in operation in the Kalangala district, where islands communities require small schools. This pilot project, including teaching resources, and specialist teacher training, is reporting good results.

However, more commonly, multigrade teaching is practiced in rural schools where teachers have neither specialist training nor materials. In Mozambique over 1,700 classes are described as “mixed” (at least two grades), but as yet multigrade is not included in the design of the curriculum, or in the teacher training. In Lesotho too, multigrade is widely practiced, but it is not normally included in the program for initial teacher education and the curriculum documents also assume monograde classes. In Malawi multigrade is used by some rural schools, but there are no formal guidelines on its use, and it is not included in the teacher training curriculum.

### ***Other teacher utilization practices***

The following summarizes current practice in teacher workload, teacher assignment, multi-shift teaching, and other strategies to optimize teacher utilization in five countries.

**Teaching load.** In Lesotho, primary school teachers have the same official working hours, from 8 AM at 2:30 PM, with some local variations. Teachers teach the entire curriculum without subject specialization.

In Malawi, schools operate from 7.30 AM to 12 noon for infants (a 4.5-hour day), with longer hours for the older classes. Normally a teacher is assigned one class for a load of 22–27.5 hours per week, depending on the age of the class.

In Mozambique, teachers work a standard 25 hours per week, teaching only one shift. In multi-shift schools, a teacher may teach two shifts, and gets 60% of the normal pay for the second shift.

In Tanzania, the primary school teacher teaches between 20 and 30 hours per week in a normal, single-stream school. Where the number of teachers ranges only from 2 to 5 per school, the teaching hours rise to more than 30 hours per week per teacher.

In Uganda, a primary school teacher, rural or urban, works a maximum of 27 hours per week. Many rural schools have shorter owing to long walking distances to and from school. Some teachers in small rural schools teach fewer hours to classroom teaching in order to do other work (e.g., gardening) to supplement their incomes.

**Teacher assignments.** In Lesotho, some schools assign their qualified and experienced teachers to the lowest grades, but in others the experienced teachers teach the older children. In schools enrolling 800 pupils or less, the Principal also teaches class.

In Malawi, Head Teachers normally teach class in small schools, and even in some of the bigger schools.

In Mozambique, all Head Teachers, regardless of school size, teach class in addition to their administrative responsibilities. The dispersed school-going population in rural areas makes for average school sizes of only 100–200 students (compared with the average of 1,600 students in Maputo city). Supplying teachers for these small rural schools is made more difficult by teacher specialization (teachers would travel to several schools to complete their 25-hour load). More recently, teachers are trained to specialize in two or three subject areas (out of 11 in the curriculum), but in the field, this has resulted in requiring four teachers to cover all of the subject areas of grades 6 and 7.

In Uganda, Head Teachers combine teaching with school management, as there is no policy on the minimum number of pupils required to constitute a class/level and because an absent teacher cannot be replaced easily by another teacher due to the tight rules on the maximum number of teachers that may be assigned per school.

**Double-shift session.** In Mozambique, many rural schools run in single shift, from 7.30 AM to 12.30 PM, with some afternoon classes, mainly for the older classes. (Urban schools often operate on two or three shifts.)

In Tanzania, primary grades 1–2 pupils spend 3.5 hours per day in double-shift session. Grades 3–7 pupils spend 7.5 hours per day in double-shift session (5–6 hours per day in a single-session school).

In Uganda, teaching in shifts has not been fully embraced, but the program is being piloted.

**Mixed classes, cluster schools.** In Mozambique, outside of the capital city, 3% of all classes are mixed, i.e., the classes are combined so that the teacher is effectively teaching two grades at the same time. Where there are insufficient teachers, the remaining teachers normally try to cover the empty classes, to avoid complaint from parents. Where the classes are too big to share one room, the teacher visits two separate classes during the same period. Alternatively the students are divided up and sent to the classes of the remaining teachers. These classes are not formally multi-grade classes, as teaching strategies and methods for multi-grade classes are not yet included in curriculum design or in teacher training.

The clusters school strategy in Mozambique centers on a “complete school” that teaches grades 1–7. This central school provides support for the other, “satellite” schools in the cluster of schools, so that students can progress from lower primary grades 1–5 from satellite schools to upper primary grades 6–7 in the complete school. (However, the clusters are geographically quite large, with satellite schools up to 20 km distant from the complete school. This distance is one of the factors that causes very large dropout at the end of grade 5.

## **Teacher management**

Managing teachers in remote areas presents additional difficulties. One concern is that teacher absenteeism may be higher in rural areas. In Uganda it is reported that some

teachers in small rural schools commit fewer hours to classroom teaching in favor of their private work e.g. gardening perhaps as a means of supplementing their incomes. This pattern is likely to be repeated in other countries.

The physical remoteness of the school may encourage absenteeism. In some countries the need to travel to collect pay is a major cause of teacher absence. In Lesotho, most rural teachers leave the school to collect their salary cheques at the end of each month. This can involve an absence of up to three days, where the school is deserted, with one teacher left behind to keep control. The government is planning to make it possible for teachers for the first time for teachers' salaries to be paid through their banks. Teachers will still want to travel to withdraw money and buy commodities, but they may be able to spread this out to reduce the impact on the school. Similarly in Uganda, it is expected that teachers should be paid through their bank accounts, but where there are no banks, teachers are paid in cash, and many have to travel long distances to collect their pay.

Medical problems have a greater impact in isolated areas. A visit to a doctor that might take a day in an urban area, can involve an absence of three or four days.

Many rural teachers are in locations away from their families or their home areas. Travel from remote rural areas can be time consuming, and travel to meet their families. If the school is in a remote location, trips often involve absences on Fridays or Mondays.

Monitoring of teacher is also more difficult in rural areas, for a number of reasons:

- First, schools principals often travel to district offices to make administrative arrangements. In Uganda, for example, the head teacher is responsible for arranging salary increments, and adjustments for each teacher. The more remote the school, the longer the head teacher is away from the school for these purposes.
- Second, remote schools are less likely to be visited by external inspectors. In Malawi, it was noted that absenteeism is more frequent in remote schools where the atmosphere is more relaxed and visits by inspectors are less frequent.
- Third, the monitoring of teachers by the local community is often weaker in remote rural areas. The local community may place a lower value on education, may be less educated themselves, and so feel less able to challenge the authority of teachers.

It would be unfair to see teacher management difficulties entirely in terms of policing teacher misbehavior. There are also system failures, which undermine teacher morale and damage the system. These include failure to pay teachers on time and delays in promotion and transfer. Teachers in rural schools often feel neglected by the authorities, and perceive that they are unfairly treated in terms of access to promotion, transfers and other benefits. Such perceptions may encourage a lower morale among rural teachers.

One of the particularly unwelcome consequences of poor monitoring and disciplinary systems in rural schools is that they may become more open to child abuse. Models of child abuse suggest that it is associated with power and authority (Nhundu and Shumba, 2001, p1522). In rural areas, pupil poverty, and respect for teachers places teachers in a greater position of power over children. In many African countries the smaller proportion

of female teachers in rural schools further adds to the opportunity. In rural areas, many cases of child abuse may not reach the official record, especially because rural teachers are influential members of local communities where they are generally well known by local police (Nhundu and Shumba, 2001, p1528). One study of sexual abuse by teachers found that incidents of sexual abuse were highest for teachers with the least teaching experience (Nhundu and Shumba, 2001, p1530).

Teacher discipline is often limited by cumbersome systems for dealing with difficulties. In Uganda teachers who misbehave are given a warning by the head teacher. If they re-offend they receive a formal warning from the inspector of schools, and finally the case is referred to the district service commission. Poor communication with rural schools can make these procedures slow to react, thus diminishing their impact. Relatively few teachers are actually dismissed for disciplinary offences. In Mozambique in 2005, 7 teachers were dismissed and 23 suspended, from a total teaching force of 46,000. In Malawi, which has 44,000 teachers, only 10 were dismissed in 2005.

In the context of the relative weakness of discipline systems, the practice of transferring misbehaving teachers to remote rural areas may have the effect of placing them in the areas where further misbehavior has the least consequences.

### ***Quality of education***

The management of teachers goes beyond ensuring attendance. Teacher management is also concerned with ensuring that teachers deliver the best possible education. There is some evidence to suggest that the quality of teacher in rural areas may be lower than in urban areas. One study of rural schools in Tanzania, Sri Lanka, India and Ethiopia found that rural classrooms were very passive. *Pupils in the "average" schools visited in this research were rarely required to participate actively in lessons, other than to repeat by rote what had been said by the teacher or to sing and clap* (Taylor and Mulhall, 2001, p141). In addition, teachers made little use of local materials, and did little to make the curriculum relevant to the local conditions. *Teachers said that they felt wary about moving away from what was laid down on the printed page, even though they might be surrounded by rich and varied resources outside the classroom and school environment. The rigidity of primary school curricula and examinations seemed to discourage teachers from moving beyond the boundaries of the subject area* (Taylor and Mulhall, 2001, p144).

There is plenty of evidence that good quality teaching makes a difference. Projects stressing active learning methods have shown marked increases in learning performance. Analysis of the READ projects in South Africa showed consistent increase in literacy scores, where teachers used a series of basic pedagogical skills to improve learning of reading (Schollar, 2001). Similar gains in literacy have been reported in Sri Lanka, where significant gains in reading (approximately three times those of control groups) were found following the book flood project, which trained teachers to use a shared reading method for 15-20 minutes per day (Kuruppu, 2001)

Rural children may experience a poorer quality of teaching for a number of reasons:

- First, parents, and teachers, may have lower expectations of what rural children can achieve.
- Second, more of the teachers in rural areas are untrained, and so may be unfamiliar with the desired methods. A study of teacher confidence in Botswana found that unqualified teachers were significantly less confident than qualified teachers, and that years of experience were not associated with increased confidence (Nleya, 1999)
- Third, rural teachers may be less likely to receive in-service training, or have the support of inspection or an education support service.

**Inspection.** While most countries have inspection services, these are often limited both in the number of schools they visit and the quality of the support and guidance they can provide. In Uganda the aspiration is that each school will be visited once per term, but this is often restricted by lack of transport, and the other tasks that inspectors are required to undertake.

In Tanzania, each school is required to be inspected at least once in two years. In districts where the number of schools is small all schools are inspected yearly. In districts where there are more than 80 schools, 50% of schools have to be inspected. Schools in rural areas are less likely to be inspected because of lack of transport, geographical factors (isolation, floods and bad infrastructures) and financial facilities.

In Lesotho, a recent report on the inspection service conclude that “School inspection is most unlikely to be contributing in any way to the quality of education provided in Lesotho’s schools”. Inspections were limited by transport difficulties, while the quality of inspection was limited by the expertise of the inspectors. Most inspection visits did not include an evaluation of the quality of education, and provided little information on quality to the school or the Ministry.<sup>6</sup> In view of these weaknesses, and in particular the transport difficulty, it seems likely that remote rural schools are unlikely to receive inspection visits with any regularity.

There have also been criticisms of the quality of inspection. Hedges (2002) reports cases in Ghana where inspection had become ritualized to the point where it involved only an inspection of lesson notes. As one teacher described it: *So sometimes ... they [other teachers] will prepare lesson notes, but they will not intend to teach ... Someone is in our staff, he will prepare sometimes ... and he has a big bundle of notes and he just transfers the notes., ... So in this way the supervisors are stressing on the lesson notes, the teachers will take advantage, prepare lesson notes and not teach, and go away* (Hedges, 2002, p360).

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<sup>6</sup> Schools Inspectorate Final Report, 2002, Conclusions.

**Support.** Increasingly, countries are supplementing inspection services with local support services, designed to provide pedagogical support for teachers. In Uganda a network of coordinating centre tutors provide support for teachers, and deliver an in-service teacher education program for untrained teachers at local coordinating centers.

In Tanzania, there are Ward Education Coordinators (WECs) who supervise and manage teachers on their areas of jurisdiction. Usually one WEC supervises and supports between 2 and 8 schools. Local teacher resource centers are used to provide support to clusters of schools.

In Mozambique ZIP (local groups of schools) co-ordinators also provide some pedagogical support, but they travel by bicycle, and may not get to the most isolated schools very regularly. District officials and inspectors are also supposed to provide support, but again transport is the problem. Lack of sufficient transport means that remote schools are visited less frequently.

In Lesotho, district resource teachers (DRTs) were established specifically to provide support for remote schools. Each DRT was assigned to provide support, particularly for untrained teachers, in a cluster of remote schools. However, even within the clusters, the schools are often geographically spread, and records show that few schools received more than 2 visits per year.<sup>7</sup>

### ***Support within the school: Head Teachers and Mentors***

It is clear that even when specialist support services are set up, it is difficult and expensive to provide monitoring and support that reaches every teacher on a regular basis. One solution is to look inside the school for the monitoring and support of teachers.

Many countries are developing monitoring tools for use at school level. In Tanzania, there is an attendance register in every primary school, and teachers have to sign in daily. Teachers also sign a form showing what they taught in each class. In Uganda, teacher attendance is recorded, using the teacher attendance register indicating arrival and departure for both morning and afternoon sessions. In Malawi too, a recent policy requires that all teachers sign in to record their attendance.

In Uganda, teacher performance is monitored at school level. Head teachers are expected to monitor teacher performance constantly, and provide a formal appraisal on an annual basis. This may prove to be a very effective method of appraising teachers. One US study found that school head teacher's perceptions of the teachers were very accurate, and were a better predictor of student achievement than teacher experience, or education (Jacob and Lefgren, 2005).

There is also increasing emphasis on the provision of pedagogical support within the school. This is sometimes done by asking a senior teacher to act as a mentor for an

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<sup>7</sup> Multiserve, Evaluation of the Primary Inservice Education programme, March 2002, p18.

inexperienced teacher. Mentorship models are a particularly efficient method of providing support for inexperienced teachers, as they avoid the problems of transport, and allow regular contact (Yarrow et al, 1999). Mentoring has the advantage that the support is provided by teachers with daily classroom experience, and may be seen as more useful by the inexperienced teachers.

Traditionally, many head teachers and senior teachers have not actively played the role of pedagogical support, but this is changing. In Malawi a recent DfID project has provided leadership training of one head teacher and two senior teachers in each school. These senior staff members are expected to provide support for inexperienced teachers. In Mozambique each teacher is given responsibility to act as pedagogical assistant. The pedagogical assistant observes the classes of teachers, and provides a written comment to the teacher, which the teacher signs to acknowledge that he/she has read it.

### *Other teacher management practices*

The following text table summarizes the various management strategies adopted in five countries in managing teachers at central (including regional), local (usually district) and school levels.

CENTRAL	LOCAL	SCHOOL
<p><b>LESOTHO</b> A national Teaching Service Commission (TSC) formulates rules on appointment, promotion, transfer and discipline. The Ministry of Education’s Field Inspectorate for primary schools is weak: Education officers who undertake primary school inspections are without expertise in primary education, are hampered by lack of transportation, and do not follow up on the recommendations of previous inspections. As the inspections do not usually evaluate the quality of education provided, the Ministry has no reliable information on which to base new policy initiatives.</p>	<p>A District Resource Teacher (DRT), usually a former principal of a primary school, provides school-based support and training in pedagogy, curriculum, and school management to rural (often unqualified) teachers in a small number of isolated, multigrade schools. Journeying for as long as a full day from a “base school,” the DRT is able to visit remote schools between one and four times a year (few schools receive more than two visits). A visit is usually for one day, occasionally lasting from two to five days. Schools visited by DRTs have evidenced increases in student learning, but this is less obvious in schools that have been visited by the same DRT over a prolonged period.</p>	<p>In government, community, and smaller church schools, a Management Committee (MC) composed of the Principal and representatives of the community: (i) helps the TSC in recruitment; (ii) recommends to the TSC appointments, promotions, and transfers; and (iii) cooperates with the Supervisor, District Education Officer, and Inspector to enforce discipline. In larger church schools, the MC manages up to eight schools. The school Principal or Head Teacher is selected by the MC. As teachers are locally hired, the MC is often reluctant to take action on the absenteeism or other misbehaviour of a popular or well-connected teacher.</p>
<p><b>MALAWI</b> At the Ministry of Education, the Planning Unit produces projections of teacher requirements, the Teaching Service Commission is responsible for recruitment, promotion, and discipline, and the Teacher Training Department trains new teachers. The national Teachers Union of Malawi (TUM) has a membership of 44,000 public primary school teachers and 2,000 public secondary school teachers. There is a separate union for private school teachers.</p>	<p>The country’s six education divisions, each with an Education Division Manager, have among them 33 school districts, each with a District Education Manager). A district is organized into zones, each with a Primary Education Adviser (PEA) and may comprise 100–200 primary schools. Provided with a motorbike, the PEA undertakes inspection and provides pedagogical support to teachers in 10–15 schools. In each zone, the Teacher Development Centre is the location for in-service training. Teacher pay is delivered reliably every month, and teachers receive salary increments automatically (unless there is a disciplinary action against them), although the payment of some arrears has been delayed and the first salary payment for a new teacher is usually months late. Most teachers are paid by check (some urban teachers’ pay is deposited directly to their bank accounts), but there are not enough banks for cashing rural teachers’ paychecks. Head Teachers collect their teachers’ pay from the paying centres.</p>	<p>Head Teachers and two senior teachers in each school being trained to provide support to inexperienced teachers. Teachers sign in to record their attendance. A habitual absentee may be reported by the Head Teacher to the District Education Manager and eventually to the Teaching Service Commission which may withhold the erring teacher’s pay until s/he agrees to improve. Absenteeism may be a more frequent problem in remote schools where the atmosphere is more relaxed and visits by the PEA is less frequent. According to the TUM, teacher indiscipline increased with untrained teachers in the mid-1990s but decreased as these teachers underwent training. In all, 10 teachers were dismissed in 1994 as a result of disciplinary action (causing student pregnancy, stealing, or exam fraud). The TUM defends teachers it considers unjustly accused, successfully winning four teachers’ court cases in the same year.</p>

CENTRAL	LOCAL	SCHOOL
<p><b>MOZAMBIQUE</b> Teacher training is standard throughout the country. The Ministry of Education has middle-level teacher training institutions (IMAPs), the main source of supply of new teachers, in nine of the 11 provinces.</p> <p>Teacher supply is planned at provincial level: the province can call for building or expanding IMAPs and may also decide the level of intake into the IMAPs. Teaching posts are advertised, but candidates also go to the provincial office in search of vacancies. Recruitment interviews are conducted under the guidance of Provincial Director of Education who recommends to the Provincial Governor the appointment of teachers.</p>	<p>Zonal (ZIP) coordinators provide some pedagogical support, but traveling by bicycle, they do not get to the most isolated schools regularly. (Other district officials and inspectors who are also supposed to provide support lack transportation for visiting remote schools.) ZIP coordinators collect rural teachers' pay in cash from the district office to distribute to schools in their assigned zone. (Teachers in urban areas are paid directly into their bank account.) ZIP coordinators, inspectors or pedagogical advisors also act on disciplinary actions referred to the zonal office by reluctant school officials. The number of teachers disciplined for misbehaviour is small but has been growing in</p>	<p>Head Teachers are nominated by the Provincial Director of Education on recommendation of the District Director of Education, a mechanism that offers no open competition. Head teachers are provided some training in leadership. The Head Teacher monitors teachers' attendance and should take action if teachers are not working regularly. However, Head Teachers often sympathize with teachers and hesitate to take action against them. Each school designates one teacher as pedagogical assistant, who observes classes and provides written comments to the teachers.</p>
<p><b>TANZANIA</b> The Public Service act No. 8 of 2002 regulations and Teachers' Service Scheme (under development) stipulate the procedures of dealing with disciplinary cases of teachers.</p> <p>The Teachers Service Department attends to the appointment, promotion, and discipline of teachers. A Regional Education Officer (REO) is a member of the Regional Secretariat responsible for teacher management.</p>	<p>The Teachers Service Department also operates at the district level, where a District Education Officer (DEO) is a member of the District Committee and where School Inspectors are based. These inspectors visit each primary school at least once every two years. However, rural schools are inspected less frequently because of lack of transport, geographical isolation (owing to floods of the poor state of infrastructure), or lack of funds.</p> <p>At the ward (sub-district) level, Ward Education Coordinators (WECs) supervise and support teachers in their areas of responsibility, usually about two to eight schools.</p>	<p>The Head Teachers in collaboration with their School Committees manage, lead, supervise, and develop staff. Head Teachers in most primary schools have attended educational management courses at the Agency for Development and Education Management. The School Committees are provided some training on their roles and responsibilities.</p> <p>To enhance their capacity, serving teachers train at Teachers' Resource Centers organized around a cluster of schools or at in-house programs conducted by specialist school teachers.</p> <p>At each primary school, teachers sign an attendance register and a form indicating what they taught in each class.</p>

CENTRAL	LOCAL	SCHOOL
<p><b>UGANDA</b> Guided by the Education Sector Strategic Plan 2004–2015, teacher supply plans aim to strengthen the primary school teaching force through training. By 2007, all untrained teachers in the system will have completed their program under the Teacher Development and Management System of the Ministry of Education and Sports.</p> <p>Operating policies: (i) Teaching vacancies are advertised in nationally in newspapers and locally at the district. (ii) All primary school teachers are general teachers. (iii) Qualified teachers are recruited directly and initially placed on probation for two years, subject to confirmation as permanent and pensionable teachers. Where no direct recruitment is possible, untrained or unlicensed teachers meeting the minimum qualification may be contracted for two years. (iv) Teachers on probation are monitored every six months. Permanent teachers are monitored annually. The teachers' day-to-day performance is monitored by the Head Teachers. (v) Attendance is recorded for both morning and afternoon sessions.</p>	<p>Teachers for primary schools are recruited by the District Service Commissions, placed in a district pool, and later deployed to fill teacher vacancies in schools. Teachers attend refresher courses conducted by School Inspectors at the district office. Primary school teachers are paid their salaries through banks. As many rural schools are far from banks, teachers travel the distance to collect their pay. Where there are no banks at all, teachers are paid cash.</p>	<p>For professional support in school, teachers turn to their Head Teacher, the deputy Head Teacher, or senior teachers. Teachers also attend school-based in-service training programs. To provide pedagogical guidance to teachers, School Inspectors visit their assigned schools at least once per term. (The inspectors also provide advice to Head Teachers and monitor curriculum implementation in school.)</p> <p>Sanctions for teacher misbehaviour include a first, informal warning by the Head Teacher; a subsequent, formal warning by the School Inspector; and reference of the case to the District Service Commission for disciplinary action.</p>

## Conclusions

Lower participation in education and poorer educational outcomes in rural areas result from a combination of factors. On the demand side, children may have less interest in school, more alternative demands on their time, and less support from the home. These difficulties are compounded by supply-side inequalities, which provide a poorer education service for rural children. This paper has identified three teacher-related areas where the educational provision is weaker in rural areas:

- 1) Teacher deployment practices leaves fewer teachers, more unfilled posts, and more unqualified teachers, in rural areas.
- 2) Teacher utilization practices result in larger class sizes at early grades. In other cases teachers without adequate preparation and materials are left trying to handle multigrade teaching. At the same time, qualified teachers may be found working with very small classes.
- 3) Limited teacher management systems may result in higher absenteeism, and shorter working hours, in rural areas. In addition the systems to ensure and develop the quality of teaching (inspection and support services) are often weaker in rural areas. In effect, the weakest teachers receive the least support.

One of the recurring patterns in the case study countries is that the rural-urban disparities are not adequately monitored and analyzed. Very substantial disparities appear between districts, but these do not always get sufficient attention in education reports. Furthermore, even larger disparities are masked by the very general classifications used to collect the data. As noted earlier, some countries use provinces or districts as the unit of analysis, thus merging very isolated schools with small town schools. There is a clear need for both a better categorization of schools, and a more systematic monitoring of the relative situation of rural schools.

## *Deployment*

Teacher deployment to rural schools presents a major challenge. Uneven deployment patterns, with surpluses in certain schools and areas co-existing with shortages in others, exist even in countries where there are sufficient teachers (Lewin, 2000, p30). Shortages of qualified teachers further exacerbate the deployment problems, as teachers have a greater opportunity to avoid undesirable posts. There are two major systems in operation, a central deployment system and a free market system. While both have merits and demerits, there is widespread acknowledgement that neither ensures an equitable distribution of teachers in the remote schools. While many countries offer financial incentives for teachers to locate in rural areas, these have a limited impact, and are not sufficient to counteract the perceived advantages of an urban location.

There is a need to develop deployment policies that ensure sufficient teachers in remote schools. Successful strategies seem likely to require a combination of accurate information about deployment and teacher movements and policies that require or encourage rural location. Some of the promising options include:

- 1) The recruitment of local teachers, as happens in Lesotho as a consequence of the market system of deployment. Combined with in-service training delivered through distance education, this means that a local person can become a teacher without ever living away from the area. It seems likely that this will help to grow a stable teaching force in rural areas.
- 2) Requiring newly qualified teachers to serve some time in remote schools before taking up an urban job has some promise. Young, newly qualified teachers may be more mobile than older teachers, and may be willing to move to a remote school, especially if they see it as a temporary move. If combined with a system of scholarships for teacher training, this may provide a channel for people from poor rural backgrounds to complete teacher training and return to their home areas. However, the operation of such systems depends on good information and management. Requiring teachers to locate in rural schools is likely to be more effective if it is known before teachers enter the training college. In this way, those unwilling to accept rural posts may self-select out of teaching.
- 3) Policies that recognize the human preferences in deployment also offer some promise. Some teachers may be more willing to move to their home area, than to other rural areas. This is particularly true where different languages are spoken in different areas. Teachers who are married are likely to value the possibility of postings close together, and even posting newly qualified teachers with a classmate may help the newcomers to settle into an area.
- 4) Incentives can have an impact, but they need to be substantial to outweigh the advantages of an urban location. To get the best value from incentives, they need to be carefully targeted on the most remote schools.
- 5) Policy makers can also reduce the relative disadvantage of a rural location by ensuring that administrative processes do not discriminate against remote schools. Efficient systems of payment (including awarding of increments) and equal access to opportunities for further study, transfer and promotion can reduce the disincentive to locate in a rural area.

### *Utilization*

Teacher utilization presents particular challenges in rural areas. Geography and limited transport require small school sizes, but small schools are inherently inefficient in teacher utilization. An acceptable overall pupil-teacher ratio in a small school can mask large differences in class size. The larger classes tend to be the younger grades, leading to poor performance in the crucial early years, and subsequent dropout. Teacher utilization is further complicated by teacher specialization, which may result in less efficient use of teachers.

There is a need to develop policies to ensure the efficient utilization of teachers. Guidelines for the appropriate utilization of teachers, and incentives to implement them, could have a significant impact. In particular, it may be important to have limits on teacher specialization in small schools, and on the use of very small classes.

Amalgamating small classes using a multigrade approach may be appropriate even within a school with one teacher for each grade, to allow smaller classes in the younger grades.

There is little doubt that efficient utilization of teachers in the smallest schools will require multigrade teaching. This can clearly work well when teachers are properly trained in the techniques, supported with teaching materials, and allowed flexibility from strict curriculum requirements. Much could be done, in the design of the curriculum, in the development of materials, and in the training of teachers, to enable better quality multigrade teaching.

### ***Management***

The quality of education in rural areas is diminished by poor management and support. At an administrative level, more is needed to ensure proper attendance and teacher behavior. More challenging is the need to monitor and foster good quality teaching, and in particular to guide young and untrained teachers.

Existing inspection and support systems are recognized to be insufficient to ensure quality. Transport problems and other logistical constraints mean that visits are infrequent. Some countries strive to achieve annual inspection visits, but even this frequency is too low to make a meaningful difference to quality. Even when inspectors visit, they tend to focus on administrative issues, rather than the quality of teaching and learning, and in some cases they may not have the capacity to adequately address these issues. Local support services offer part of the solution, but they too suffer from patchy coverage, limited transport and infrequent visits.

Providing sufficient monitoring and support from central services will be very expensive, both in terms of personnel and transport. One likely solution lies in strengthening the management within the school.

Promising directions include:

- 1) Development of monitoring tools that can easily be used within schools.
- 2) Providing training for heads teachers and senior teachers which specifically equips them to mentor other teachers and focus on the quality of teaching. Head teachers, in particular, often see their role as purely administrative.
- 3) Focusing inspection visits on quality, and building capacity in inspectors to make a meaningful contribution.
- 4) Streamlining ministry administrative procedures to enable head teachers to spend less time dealing with the ministry and more time managing their schools.

Finally, at ministry level, it is important that the rural-urban divide be included in routine monitoring of the education system. Once schools are appropriately classified in terms of their geographical isolation, differences in gender, attrition, repetition, and learning may emerge. Careful monitoring of these issues will help to keep the rural-urban divide on the policy agenda, and allow evaluation of the policy measures taken to alleviate the divide.



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