Towards the Elimination of the worst forms of Child Labour (TECL Programme)

347 Hilda Street
P.O. Box 11694
Hatfield, 0028
Pretoria, South Africa

A project in support of the South African Child Labour Action Programme (CLAP).
Lead department: Department of Labour

Tel: [+27] (12) 431 8829
Fax: [+27] (12) 431 8858

DESIGNING PILOTS TO ADDRESS A PRIORITY AREA OF CHILD WORK IN SOUTH AFRICA

Focus Area 4: Delivery of Water to Households Far Away from Sources of Safe Water

STAGE 1: DESIGN OF THE PILOT PROJECTS

PHASE 1: RAPID ASSESSMENT REPORT

APPENDIX 1: LITERATURE SURVEY

Draft 1.0

14 February 2005

Prepared By:
David Hemson and Jane Kvalsvig

The Human Sciences Research Council

EXECUTIVE SUMMARY

There is increasing concern internationally, reflected in current policy debates, in the International Labour Organization and among non-governmental agencies and campaigning groups that the practice of child labour, particularly in developing countries, remains a feature of the lives of poor families and often blights the future of the child (Guarcello, *et al.*, 2004). Under conditions of globalisation, the phenomenon is not only related to the poverty of these countries but there is increasing awareness of the interconnection through markets and, for instance, the international child sex trade, that all of human society is connected in some way with the continuation of many forms of child labour. In other cases, child work appears a phenomenon particularly of the poor family struggling for access to basic necessities, such as income, food and water, and the question is more that of accelerated development with care and attention being given to focus on eliminating the worst forms of child labour as a key policy objective. The research and interventions encouraged by the ILO's Elimination of the worst forms of Child Labour (TECL) are designed to ameliorate such labour (Clacherty and Budlender, 2004).

Where the activity is located

The main source of information comes from official surveys, in particular the Survey of Activities of Young People, SAYP, conducted by Statistics South Africa in 1999. Among all the work-related activities undertaken by children, the activity which places demands on the greatest number is that of collecting wood and water. A considerable proportion of the children of South Africa are involved in this activity; in the broad definition of activity (of one hour or more a week) there are 4,5m children, which is 33.4% of all children. In the narrow definition (of three hours or more a week) there are 3,1m children, or 23.2% of all children involved.

From the child labour survey in Zimbabwe, it is clear that child labour is largely an activity conducted in rural areas by the age cohort 10-14 (ILO, 1999). These Zimbabwean children worked as unpaid family workers either in household enterprises or assisted parents for no direct payment.

It is important to re-analyse the data on child work to separate out the location, age, and time taken in collecting wood and dung and water. Unfortunately none of the literature internationally or locally makes a clear distinction between these two activities, indeed most researchers combine a considerable range of children's activities in the household, including collecting fuel and water, under the term 'helpfulness' or 'domestic activities', making analysis of the activities of interest here difficult (Mturi, 2003).

Hours spent

Analysis conducted on the South African survey data (particularly the Survey of Activities of Young People, SAYP) now, however, can distinguish between the two activities of collecting dung and wood and water. It is found that collecting wood generally takes more time than collecting water, but despite this there are fewer involved in this activity. Those children reporting undertaking both activities spend on average 9 hours 18 minutes a week. Within this group more than half of those collecting water are girls, with girls spending on average 55 minutes a day compared to 49 minutes spent by boys. If the same activity is undertaken daily, this would amount to 6 hours 25 minutes a week for girls and 5 hours 43 minutes for boys. These are considerable times for this demanding activity, which is concentrated in 'other rural' areas broadly conceived as tribal areas (Poswell and Oosthuizen, 2003). Research has, in addition, identified that those people who are not served by a rural water

project and dependent on unimproved water sources carry the greatest load; an important argument logging child collection of water as a priority in planning water projects.

Although there has been growing interest in the issue of children collecting water there has been very little research conducted on the potentially harmful nature of the activity (an exception is that of Clacherty and Budlender, 2004). There is a body of opinion which regards such domestic activities as essential both to the household and to the socialisation of the child (Ncube, 1998 and Goslin, 1969). From one perspective these activities are essential child rearing practises, designed to equip a child for the future; but research into child labour finds that the mundane and repetitive nature of these tasks does little to stimulate children's development, but it does, however, develop the taking of responsibility and cooperative behaviour. Although child work often does not start as an entirely gendered activity, many types of work eventually take on such a gender dimension.

Although collecting water by children is not analysed separately in publications on children's activities, there are a number of data sources from which these calculations can be made. Reference is here made to the SAYP and the Labour Force Survey. From the analysis of the SAYP data there are 4,3 million children involved in collecting water an hour or longer a week and of these 80.2% live in the 'other rural' area which includes the former homelands and other areas not including commercial farming. Altoghether 20 million hours a week are taken in this activity, and 86.4% of this time is undertaken in 'other rural' areas.

Associated activities

Those children involved in collecting water are also deeply involved in similar activities such as collecting dung and wood and housekeeping: 2,3 million of these children also collect dung and wood and 3,7 million are active in housekeeping (both for periods equal to or longer than an hour a week). In addition to the 20 million hours collecting water, these children spend 19 million hours collecting dung and wood, and 11,7 million hours in housekeeping a week: a total of 50 million hours. On average these children spend 4 hours 38 minutes collecting wood, 4 hours and 23 minutes collecting dung and wood, and 2 hours 23 minutes housekeeping which amounts to a total of 11 hours and 44 minutes in these household activities a week. Easing the burden of collecting water would significantly reduce these hours.

Among these children 2,4 million spend three or more hours collecting water a week (the narrower definition). Of these 1,0 million also collect dung and wood and 1,7 engage in housekeeping on the narrower definition of three hours or more a week.

A proportion of children collecting water (1,1 million) spend more than seven hours in this activity a week. Of these 437 000 spend an additional seven hours or more collecting wood and 721 000 spend equivalent hours housekeeping.

There are 3,6 million children involved in collecting water for seven or more hours a week and also active for an equivalent time period in either of the other two activities of collecting dung and wood and housekeeping. Of these 2,3 million spend between 7-19 hours a week in these combined activities, 767 000 spend between 20-39 hours a week, and 140 000 spend 40 or more hours a week in these combined activities.

Analysis of the Labour Force Survey finds that KwaZulu Natal has the greatest number of children involved in collecting water followed by the Eastern Cape, and Limpopo. Although children are also involved in collecting water in informal settlements and commercial farms, the activity is concentrated in the provinces with most remote rural areas. The children undertaking the longest hours are concentrated in the Eastern Cape, followed by KwaZulu-Natal, and Limpopo. It is in these areas where there is the greatest need for intervention to reduce the burden on children. The task of collecting water tends to fall on older children. Of all the children in the activity, 32% are in the age group 5-11 and 68% in the age group 12-17.

Effect on health

The surveys planned by TECL of remote rural areas will investigate these issues. Preliminary research into the relationship between demanding domestic activities and academic achievement indicates that excessive hours definitely affect schoolwork. Although this type of child work is often considered not harmful for children, it does tend to delay the possibility of schooling or affect educational performance. In addition, little attention has been paid to date to any possible long-term physiological damage which may be associated with carrying water. Research into the effect of water contact on the health of children has, however, drawn a clear link between water contact (as involved in gathering water from rivers and streams) and parasitic infections such as bilharzia (Kvalsvig, 1991). These issues have generally not been given sufficient attention in the health and schooling of children, as parasitic infections can have an effect on social and cognitive development.

The unpublished data associated with a contemporary study of rural schooling conducted by the HSRC and that of research preparing for CLAP in South Africa; provides evidence that a considerable number of children in remote rural areas are involved in collecting water both before and after school (Nelson Mandela Foundation, 2005 and Clacherty and Budlender. 2004). In the diaries of children these activities are listed as being associated with school. The diaries and interviews with parents reveal that there are additional burdens on children who are, at times, required to collect water for educators at school as well as their domestic activities. The extent to which children's education is adversely affected by collecting water requires further analysis of surveys in the field. Interviews with parents of children dropping out of school (Nelson Mandela Foundation, 2005) indicate that poverty and the combination of all domestic activities, but particularly the time taken in queues at the water source, is a major deterrent to children continuing with their education.

Appropriate technology

There is a considerable literature on the question of appropriate technology in delivery of piped water to the rural poor (Still, 2001; Vosloo and Ngwabi, 1997; Faulkner and Lenehan, 1997). In South Africa, the demand from rural communities is universally for yard connections, which secures the greatest consumption for the least human effort. This level of service is, however, only occasionally available in rural areas and the most general form of reticulation is that of communal taps nearer or further from homesteads. In the Umkhanyakude District Council there has, however, been some experimentation with wells, which are provided to each household in some areas. This has the advantage of providing a 'free basic service' of unlimited supply for both domestic and farming purposes.

Unfortunately no literature could be located on the processes involved in the prioritisation of water projects beyond the power of local municipalities to undertake this task. The current literature on delivery concentrates on the health effects potentially available through improved delivery and easing the burden on women rather than recognising the contribution of children. The Strategic Framework for the water sector, a fundamental policy document, does not mention children collecting water, but it does set out various proposals for public participation in water delivery. Through these means, and in direct discussion with local government, there is the basis for raising the question of children spending long hours collecting water.

The issues highlighted in this literature survey are preparatory to field surveys which will gather information about the volume of water collected, the relationship between different activities, health issues, and the effect on school performance.

In the current HIV/AIDS pandemic the ready supply of safe water to households is increasingly important. Children are increasingly involved in assisting in caring activities in

the home and need what support can be given in easing the time taken in providing water to the home.

TABLE OF CONTENTS

TABLES AND FIGURES

INTRODUCTION

There is increasing concern internationally, reflected in current policy debates, in the International Labour Organization and among non-governmental agencies and campaigning groups that the practice of child labour, particularly in developing countries remains a feature of the lives of poor families and often blights the future of the child. Under conditions of globalisation the phenomenon is not only related to the poverty of these countries but there is increasing awareness of the interconnection through markets and, for instance, the international child sex trade that all of human society is connected in some way with the continuation of many forms of child labour. In other cases child work appears a phenomenon particularly of the poor family struggling for access to basic necessities such as income, food and water, and the question is more that of accelerated development with care and attention being given to focus on eliminating the worst forms of child labour as a key policy objective. The research and interventions encouraged by the ILO's Elimination of the worst forms of Child Labour (TECL) is designed to ameliorate such labour.

This review will range over some of the questions which have been posed in relation to child labour in Sub-Saharan Africa as well as providing an extensive review of what literature and data exists on the phenomenon of children collecting water in South Africa. The TECL Project for which this survey is being conducted, is designed to gather all relevant information on this subject to help local municipalities particularly to prioritise water projects to ease the burden where it is found to be heaviest.

The intention is to obtain relevant information, both local and international, that can be incorporated into this project. The project outline anticipated the following would be included:

- Information regarding the impacts that water collection has on household and the child and how this has been addressed in rural areas elsewhere – locally and internationally.
- In addition it should address studies of the effect on more accessible water on economic activity of the household, community interaction processes with local government in the prioritisation process, legislative framework regarding water service provision etc.
- Appropriate strategies to address the differing role of boys and girls will also be investigated.
- In what way has water been made more accessible and to what extent are technical solutions available. The use of "appropriate technology" (e.g. hand pumps, rainwater harvesting etc), has been widely proposed in many developing countries.
- The literature survey, taken together with the stakeholder consultation, will be aimed at determining best practice, and to avoid duplication in the design of the pilots.

The focus of the research and intervention in the Terms of Reference is to assist in the prioritisation of households located in deep rural areas which are located furthest away from safe sources of water.

> By delivering water to such households the extremely long periods spent by some children in collecting water could be reduced, thereby making more time available for schooling and other activities. It should also reduce the hazards they are exposed to.[1]

While the intervention should prioritise the alleviation of child work in collecting water, women, the family and the community as a whole should benefit by the reduction of an excessive time spent in fetching water. With the release of this time more attention could be given to schooling and social development.

This general outline has been taken up in the sections which follow and returned to in conclusion. Unfortunately there is a paucity of material which recognises the problem of children spending long hours collecting water and strategies to ease the problem. This survey works on the strengths within the literature, conducts fresh analysis of statistical databases, and examines the setting for water delivery to meet these difficulties.

METHODOLOGY

In discussing the involvement of children in essential household tasks, as in the case of collecting water, there is an important conceptual hurdle to overcome that of children's activities on the one hand and extensive child labour on the other. The question could be encapsulated in a question: "Does the use of children in essential domestic activities constitute necessary development both for the child and for the household or does children's work involve so many hours that it becomes exploitative and harmful to the children involved and becomes termed child labour?"

There is much debate and, at times, not a little conceptual confusion about the distinction in relation to domestic activities; fieldworkers involved in research in rural areas at times do not distinguish between different types of activities in the home. There is often an overlap between what could be regarded as children's domestic activities as contrasted with work which is essential to household reproduction. In a recent research project, for instance, a fieldworker did not recognise the activities of children in carrying out essential domestic tasks as children doing adult work as she felt the chores of sweeping the house and washing dishes were by definition children's activities.[2] The conceptual imprecision here is often reproduced in research conducted into children's activities and rural development; is there a sphere of work specific to children or are chores undertaken in the family adult work done by children?

There are cultural issues as well as the determinants of deep poverty and family resources which are involved in the matter of child labour, and this review will attempt to explore these issues as well as measure the level of child activity in collecting water and its effects both on family and the individual child.

While there are complaints of insufficient information being available about the incidence of child labour, there is growing attention to the problem and an increasing number of surveys which work both to quantify the general problem and locate it within the geography of poverty (see particularly the SAYP, 1999; STATSSA, 2000; and Rama and Richter, 2005). While the problem is a general one, there is a growing 'sectoral' series of studies which are producing information on the involvement of children as sex workers, as domestic workers, and in other worst forms of child labour.

The use of children in collecting water for households in remote rural areas is not well

[1] TOR 1.1.6.
[2] Point made in discussion with Jane Kvalsvig, one of the authors.

researched internationally. A survey in South Africa approach the problem (STATSSA, 1999, 2000, 2001), but unfortunately it is difficult to disaggregate data which combines both the collecting of water and the collection of firewood. In addition a major study of the issue of rural vital indicators in *rural* KwaZulu-Natal (Mturi, et al, 2003) does not examine child labour and includes collecting water among chores generally as a domestic non-economic activity and it is not possible to get to the subject with any precision.

In the latter study the child's contribution to the household is assessed in terms of 'helpfulness': undertaking errands, looking after siblings, cleaning, caring for sick relatives, farming and herding, selling, working as a domestic worker and 'other things'. By far the largest item of helpfulness in both male and female children (56% in both cases) falls under the heading "When going for errands". Unfortunately the term errands is not defined, but could include going to shops, collecting water, gathering wood, taking messages, etc, but this is not spelt out. In discussion of the survey the authors describe the question as 'slightly problematic' (Mturi et al, 2003, p62) in terms of the responses recorded. Unfortunately it is not clear whether helpfulness reflects attitude in undertaking the errand or the errand itself "with the result that we are not simply picking up on the support that children offer".

There is some reluctance at times to recognise that child labour is involved in the general system of production and management of material wealth. While the origin of the term 'economic' was household management, the emphasis in the modern period is on national and global economic concepts and largely excludes household activities. This, in turn, is held to devalue the work of women and children, and the popular conception is that child labour is essentially that of non-economic activities.

The focus is on children activities and how they can be conceptualized, and, the first line of division is between economic versus non-economic activities in terms of United Nations Convention on the Rights of the Child. The authoritative Survey of Activities of Young People (SAYP) makes the following point:

> The division of children's work into economic versus non-economic activities may sometimes seem artificial. For example, household chores such as cooking, cleaning and child-care are not regarded as an economic activity if performed in the child's household, if a parent, grandparent or spouse is also a member of that household, although they are regarded as a non-economic work activity if done for seven hours a week or more.
>
> The same activities are however regarded as an economic activity if performed in the child's household if none of the parents, grandparents or spouse is a member of that household. The latter activities are referred to in this report as `unpaid domestic work'. Fetching wood and/or water for the household, on the other hand, is regarded as an economic activity whether or not the child's parents, grandparents or spouse lives in the household, according to ILO classifications. (STATSSA, SAYP 1999, 12).

This inclusion caused some controversy in the discussions of the survey.

> As indicated earlier in this report, analysis was complicated by the fact that the term `economic activities', as used in the questionnaire, excluded activities such as collection of wood and/or water and unpaid domestic work. Consequently, questions that were restricted to economic activities (such as those on hazardous conditions of work) were asked only about activities for pay, profit or family gain (SAYP, 109).

Rather than pursue these quesitons in relation to the collection of water, this review rather accepts the distinction made in the SAYP of a division between activities less than seven hours and those taking seven hours or more. This is a useful distinction (although not argued in the SAYP) as it appears to assume that a child is engaged in this activity for at least one hour a week, an indication of some degree of work, while fewer hours indicate activity at a lower intensity.

In this review the literature on child development, child labour generally, water delivery and social policy is examined. The authors engaged in an international review of journals through the HSRC's knowledge database which accesses thousands of journals and other publications. Unfortunately there is a paucity of material which relates directly to the question of children collecting water and the researchers have used existing databases from surveys of young people's activities or of the labour force to work out the dimensions of the phenomenon and its location.

In this sense, the review goes beyond a literature review, in generating statistics to prepare for the second phase of the project which is that of advocacy and implementation of pilot projects in the interests of those children with the greatest burden.

WHAT IS THE RELATIONSHIP BETWEEN CHILD DEVELOPMENT AND WORK?

The literature recognises that what appears as child work may be activities, which are both a benefit to the household and to children themselves (Ncube, 1998 and Goslin, 1969). This is true of many developing countries throughout the world: children are included in activities which are regarded as adult responsibilities in developed countries, and there is often much for the child to gain. As described by Robson (2004), Nigerian children not only acquire commercial skills by helping family members buy and sell, but increase their general knowledge of their community through running errands.

From one perspective these activities are essential child rearing practises, designed to equip a child for the future; but research into child labour finds that the mundane and repetitive nature of these tasks does little to stimulate children's development, but it does, however, develop the taking of responsibility and cooperative behaviour (Goodnow, 1988). Although child work often does not start as gender specific, many types of work eventually take on such a gender dimension. Child work which has been an aspect of traditional relationships, such as the exchange of children for domestic labour within a region have eventually taken on a commercial aspect with long hours, poor treatment, and difficult living conditions (Jacquemin, 2004). Traditional cultural practises under current conditions eventually take on a cash form.

These practises it is clear, come at a cost to the full development of the child. Children who spend all their after-school hours working at chores do not have time to develop skills and talents more suited to a modern job-market when they come of age. Reading skills, in particular, may suffer.[3] Indicators of where the positive value ends and exploitation starts has to be evaluated case by case against poor performance on educational tasks and evidence of poor health and mental health, and seen in the light of the family's needs. If children have no time to look at reading materials, play games and are frequently tired and depressed, this would indicate that they were being burdened with too much work. Evaluation of the practise should be sensitive to the cultural value placed on these skills and functions, and the family's needs.

A recent publication aimed at trade unionists attempts to make a clear distinction between work and labour:

> Child work allows children to grow to physical and intellectual maturity in a situation free of commercial exploitation, moral decadence or punishment. Such work should

[3] Research into rural education has found that rural school children required to queue for water and undertake domestic chores complain they cannot complete their homework. The matter is discussed further below.

not inflict pain or physical retardation. Child work is, therefore, positive and expected to build confidence and esteem in the child. Such activities include cooking, washing, digging, fetching firewood and water, baby-sitting, etc.

Child labour includes all work which, by its nature or the conditions under which it is carried out, harms, abuses or exploits the child, or deprives the child of care, education, proper physical and social well being and the right to good health (Mwamadzingo et al 2002, p1).

The distinction between child work (associated with socialisation and development) and child labour (associated with harmful practises) is sharp and precise. Although it is conceptually clear it avoids some of the complexity of categories of activities such as fetching wood which can slide from actitivity to work and possibly into labour depending on how many hours a child and effort is involved. The mark of difference is at times drawn between *paid* and *unpaid* labour, but in the domestic context both work and labour are most often unremunerated. The difference between work and labour seems to rely on the appropriate age of the child involved in an activity, the physical exertion involved, potential hazards involved, and the overall harm to the child. Often distinctions can be made of activities *appropriate* to age; 2-4 year old children may, for instance, not be expected to carry wood but may accompany their older siblings and learn about the activity. By the age of 5-10, however, rural families (and the researchers studying rural development) may regard this as an appropriate activity if the child is not overburdened by the sheer weight of the wood or exhausted by the distance covered. Work, too, carries its own gradations.

In addition, there are issues of child development which may be restricted or retarded even in the instance of children undertaking domestic chores; a child caring for a sick elder may miss schooling, may not be able to participate in children's play and may not get the necessary exercise. Within this research these distinctions will be important in coming to grips with a social issue which is increasingly quantified in a number of surveys while there is much imprecision in relation both to the nature of the activities of children and their classification as conventional or harmful.

There are arguments that child labour in Sub-Saharan Africa may be particularly exploitative and critical due to developmental challenges, frequent natural disasters, famine and hunger and armed conflicts (Admassie, 2002:252). Child labour is regarded as abusive because it is associated with long hours of dangerous and unhealthy work. As importantly Adamassie argues:

> ...child labourers are deprived of their freedom, childhood, education, fun and play, and natural development. Childhood should be a period of learning, recreation, and physical, mental and social development.

The phenomenon can be viewed from a strictly economic point of view as counter-productive to regional and national development as child labour interferes with educational and personal development. Child labour is thus a dis-investment to human capital formation and has a detrimental effect on the private and social returns from investment in education and health. Young children may be required to undertake work which is not only beyond their physical capability but this labour also interferes with their future welfare and human capital formation (Ravallion and Wodon, 1999). These issues will be returned to in more detail below.

CHILDREN ARE AN ASSET TO POOR RURAL FAMILIES

In the perceptions of families in deep rural areas there is not a keen awareness of the use of child labour as a problem; particularly in the poorest countries of Africa, children are seen as

a resource and education (although valued) is perceived at times as taking children away from the essential domestic and agricultural tasks. Among the poorest families child work is an aspect of their survival strategy.

Although it is evidently a major problem of child labour in Sub-Saharan Africa there is a serious lack of data on the topic, in particular in the link between child labour and macroeconomic variable, in particular whether this declines with economic growth and development. Studies which have been undertaken relate child labour particularly to high levels of poverty, a poorly developed agricultural sector, high fertility rates leading to high population growth, and low education participation. A review conducted by Admassie (2002a), argues that there is a direct link between poverty and child labour, and that deep poverty explains the high incidence of child labour in Africa.

> This complex problem calls for comprehensive and multi-faceted interventions including the adoption of poverty reduction strategies, introduction of labour-saving technologies for the agricultural production, an aggressive provision of primary education, and the mobilization of the communities for creating awareness (Admassie, 2002a:251).

A further study by the same author on incidence of child labour in Africa utilising survey data from rural Ethiopia concludes, however, that there is not a simple relationship between poverty and child labour and comes to the following conclusions:

- That household assets have a crucial role in allocating children's time and that, contrary to some expectations, an accumulation of some assets, such as land and livestock, can increase the probability of working and correspondingly hinder school attendance.
- Some technologies may assist in reducing child labour by encouraging land and labour savings.
- Perceptions or actual levels of school fees and the quality of education are often disincentives to rural child education.
- Parental education is a key area for policy intervention as parental education levels are a factor in improved levels of schooling.
- That there are gender differences making it more probable that boys attend school than girls and
- Finally that there are marked regional differences which invite targeting of children in poor and famine-prone regions (Admassie (2002b:48-9).

In Africa it appears that there are sharp contrasts between strategies leading to household survival and the individual educational advancement of children. These contrasts are not clearly posed in the minds of the heads of households and parents generally, as educational facilities are often far from being ideal and impose costs on the household, while the question of family survival is keenly pressing and demands everything of family human resources. The clash between domestic and agricultural labour and schooling in some countries is immediate and direct. As Admassie explains:

> The empirical data from Ethiopia, although it may not be representative of the whole continent, showed that children as young as five years old are made to participate in farm and household work activities, some of which could be totally incompatible with schooling (Admassie, 2002b).

There are evidently different perceptions of household coping strategies in conditions of deep poverty. Some families see education as an investment in the future both of their children and of their families while other families which could be termed 'traditionalists' feel that child

labour can keep the family coherent and intact; while other families feel they do not have a choice.[4] In South Africa there are reports that some grandmothers feel they want their grandchildren around their homes to help them in everyday domestic activities. Other families are prepared to 'break up' the family; by sending needy children to better off relatives, possibly in the area or close to a school.[5]

Family work is viewed primarily as skills development and assistance to parents, and often goes unremunerated. This may be referred to as "child work". In South Africa, socio-cultural factors mean that girls are more likely to be helping the mother and other female members of the family in performing household chores and child-rearing duties. Boys, on the other hand, assist with cattle herding and other outdoor household activities (Goslin, 1969). In the African context, children are there to assist the family in agricultural production (whether subsistence or commercial) and in other household activities. The importance of family labour among children in Kenya is such that many parents entirely depend on it (Onyango, 1988). Although this type of child labour is often considered non hazardous for children, it does tend to delay or deny the possibility of schooling.

CHILDREN'S WORK AND ASSIMILATING ORPHANS

One of the key strategies for the care of orphans detailed in the UNAIDS and UNICEF 'Framework' document (2004) is to strengthen the capacity of families to protect and care for orphans. Evidence gathered from a study of the costs and outcomes of different models of care for orphans in rural areas in the Underberg area (Desmond and Kvalsvig, 2005) has shown in some detail the way in which orphans help with the running of their foster household, and that this has drawbacks. Provision of a clean water source at the household would have relieved them of an afternoon chore after school. The area is mountainous and the rivers run in steep valleys, icy in winter. Most houses are some distance from rivers on sunny slopes, and several hundred feet higher than the water source from which the children draw the water daily.

Most children in the 5-10 age range assisted with household chores on a daily basis and did this willingly. They fetched wood and water for the household, ran errands to the shop, washed clothes, cleaned the house and looked after younger children. In this community the use of children to assist with the running of the household almost certainly helped the individual households to assimilate the children, and statements from caregivers such as, "He is just part of the family", or "We get on well as a family" emphasised that most caregivers in the study did not appear to distinguish between the orphans and other children in the family.

There was, however, evidence that this strategy was not enough to mitigate the effects of severe poverty on over-burdened caregivers. Evidence for neglect and lack of supervision was an important issue for the orphan study. The observers noted that in several cases, when visiting the individual homes, they found that the child had arrived home from school and there was no adult present, nor did the child know where the adults in the family had gone. Lack of supervision of very young children was a particularly worrying feature of the community care arrangements, and more likely to happen where the caregiver was burdened with too many responsibilities or had few resources.

Superficial impressions from individual data sources that most children and caregivers were coping well were misleading. It was only when information from various sources were combined that the extent and seriousness of the problems facing the caregivers and the

[4] Conclusions of discussion with authority on child development.
[5] This is regarded as a very important aspect of children's lives in the Underberg area of KwaZulu-Natal.

children were apparent. The variety of methods utilised, and the time spent in the home assessing, interacting with, and observing family practises uncovered problems that would not have been manifest in a more cursory investigation. The seriousness of deleterious factors exposed in the course of data gathering indicated a high level of developmental risk in this group of orphans, which could have a cumulative effect over time. The deleterious factors identified were diverse – implying that poverty and poor health were so pervasive that any stressor tipped the balance between coping and not coping.

The children's performance on cognitive (mental developmental) tasks was compared with the performance of a group of orphans from the same community who had been placed in an orphanage. Several of these children had been abused and were placed in the orphanage for their protection by social workers. They attended the best primary school in the area, and voluntary workers helped them with their school homework in the afternoons. Despite their traumatised state these orphans performed significantly better on cognitive tasks than the orphans in community homes.

IS COLLECTING WATER A PROBLEM?

Collecting water is a matter of some sensitivity as child work in this activity has been a traditional form of rural homestead life and continues today even where there has been the implementation of a communal piped water system. While such activities are not considered worst form of child labour, the CLAP has identified them as forms of child activities which should be prioritised for action. Such action does not judge the necessity for child work within the poor household or aspects of traditional culture but provides a positive alternative.

Non-economic activities include household chores, where any of the child's parents or grandparents and/or the child's spouse lives in the household; and school maintenance, for example, cleaning toilets and classrooms and maintaining school premises (SAYP, p3).

Official surveys of the question of child give greater clarity to the question. In analysis of the SAYP it is possible to get a clearer idea of the magnitude of the most common activity that is collecting wood and/or water and locating this activity within the wider spectrum of economic activities undertaken by children. In Table 1 this activity is isolated as A and contrasts can be made with other economic activities and combinations of activities.

Table 1: Mean Time Spent on Economic Activities, per week

Activity	A only	B only	C only	Total Time	Average Time per Activity
A only	9 hrs 18 min	--	--	9 hrs 18 min	9 hrs 18 min
B only	--	8 hrs 43 min	--	8 hrs 43 min	8 hrs 43 min
C only	--	--	13 hrs 35 min	13 hrs 35 min	13 hrs 35 min
A & B	6 hrs 41 min	4 hrs 47 min	--	11 hrs 28 min	5 hrs 44 min
A & C	7 hrs 50 min	--	7 hrs 51 min	15 hrs 41 min	7 hrs 50 min
B & C	--	7 hrs 11 min	12 hrs 31 min	19 hrs 42 min	9 hrs 51 min
A & B & C	9 hrs 52 min	8 hrs 03 min	7 hrs 36 min	25 hrs 31 min	8 hrs 30 min

Source: Poswell and Oosthulzen, 2003: 18.

Notes: A: Collection of firewood/fuel and/or water. B: Unpaid chores in own household where neither (grand) parents nor spouse is resident. C: Economic activities.

The analysis finds that the total time spent in each activity declines as the activities are combined and that those children who spend time directly in economic activities spent the greatest amount of time over a week.

The number and proportion of children engaged in economic activities in the two activities of fetching wood and/or water is shown in Table 2 using two different cut-off points.

Table 2: Fetching wood and/or water

One hour a week cut-off point		Three hours a week cut-off	
N 000s	% all children	N 000s	% all children+
4,495	33.4	3,116	23.2

Source: SAYP, 1999: p34

Each percentage is a percentage of all children in the age category 5-17 years.

Fetching wood and water is defined as an economic activity by the ILO and, as measured by the SAYP, is the most common economic activity in which children participated (SAYP,4-5). A considerable proportion of the children of South Africa are involved in this activity ranging 33.4% in the broad definition of activity (4.5m children) to 23.2% in the narrow definition (3.1m children). A comparison from Zimbabwe is instructive: this study conducted at the same time as the SAYP found that over 90% of the economically active children reside in the rural areas with the age cohort 10-14 accounts for the majority these children. Most of the children (88%) were not in paid employment, they worked as unpaid family workers either in household enterprises or assisted parents for no direct payment (ILO, 1999b).

From the tables provided by the SAYP is possible to derive the location of children involved in collecting wood and water and it is clear that the activity is concentrated in the 'other rural' area i.e. in the deprived former homelands.

Table 3: Collecting wood and water by type of area

	No collecting wood and water	Total no of children	Percentage of all engaged in this activity
Urban formal	578,000	5,331,000	11%
Urban informal	335,000	909,000	6%
Commercial farms	389,000	899,000	7%
Other rural	4,091,000	6,301,000	76%
	5,393,000	13,440,000	100%

Source: SAYP Tables on children's work-related activities, Constructed from Tables 1.2 and 2.5

From the table above it can be seen that of all children engaged in collecting wood and water (5,4 million), 76% (or just over 4 million) are living the 'other rural' areas. As importantly the number of children engaged in this activity for seven or more hours is even more concentrated in the deep rural areas.

In the table below the number of children involved in collecting wood and water is presented.

Table 4: Time taken in collecting wood and water by type of area, per week

	Less than 7 hours	7 or more hours	Total involved in this activity	Percentage of total =>7 hours
Urban formal	528,000	50,000	578,000	3%
Urban informal	274,000	61,000	335,000	4%
Commercial farms	307,000	82,000	389,000	5%
Other rural	2,773,000	1,318,000	4,091,000	87%
	3,882,000	1,511,000	5,393,000	100%

Source: Computations from SAYP, Tables on children's work-related activities, Table 2.5

From the table above it is clear that of those children engaged in this activity for seven hours or longer (a total of 1,511,000) altogether 87%, or 1,318,000 are located in the deep rural areas. From another perspective it is shown that 9% of those engaged in this activity and

living in urban formal areas spend seven or more hours, while 32% of those undertaking this activity in deep rural areas are spending seven or more hours.

Many children in poor communities in Africa are expected to assist to a greater or lesser degree in running the household. In a study of five year olds in a rural Zulu community in KwaZulu-Natal, all children were involved in household chores: They fetched water, gathered firewood, ran errands to the local store, swept the yard, washed dishes and clothes and herded cattle (Kvalsvig et al, 1991).[6] These activities were regarded as children's work, and the children were expected to perform them efficiently, although allowances were made for five year olds because they are still very young. In another study exploring age-appropriate behaviours, the nine year old participants from a rural area in KwaZulu-Natal related stories of their competence in household chores with some pride (Dawes et al, 2004).

In the fieldwork children were asked to draw themselves as they were when they started school and as they are now (at age 9) and to say *what they had learnt to do since they had started school.*

> Facilitator: Oh! Good Thandeka; Thank you Thandeka, Thandeka has finished. (She one of the fast ones) Is there anyone else who's ready? .What is it that you can do now?
>
> Child 1: Wash dishes
>
> Fetch water
>
> Write words
>
> Play magalobha (a game that is played with a rope around two people's waists on either side, then one child jumps from in between the ropes to the out side and back inside the rope)
>
> Facilitator: Now I am with Nelisiwe. Tell me then Nelisiwe, what is it that you know how to do now which you did not know how to do before you started school? Tell me.
>
> Child 2 Tell a fairy-tale story
>
> Wash dishes
>
> Go to the river
>
> Send the baby to sleep
>
> Bath the baby.

This cultural practise of assigning responsibilities may be viewed positively as part of socialisation, as including children in family activities and making them feel valued, as practises which allow children to be absorbed into other households when necessary, without placing an intolerable burden on the adult caregivers. In the context of an AIDS epidemic it has clear value in enabling grandmothers, aunts, and older siblings to take over the role of caregivers when infected parents sicken and die.

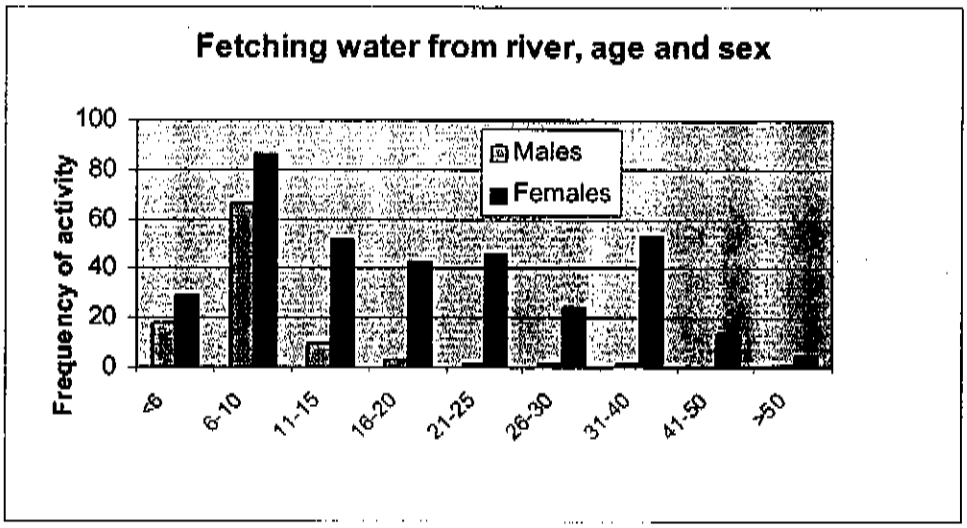
There are, unfortunately, considerable difficulties in locating the number of children collecting water as the categories of activities tend to be blurred in the literature and the existing surveys need time consuming data analysis to get to the subject. Although it is possible to get percentages of the sample involved in various activities, there are particular problems in weighting the data to reflect the numbers of children.[7]

---

[6] Despite reflecting research conducted some time ago, this study will be referred for providing high quality data in relation to water contact by age and gender.

[7] In discussion with Sharmla Rama, CYFD, HSRC it was pointed out that weighting the data was a particularly difficult exercise.

There are two approaches to the problem which have been undertaken. The first is to examine existing literature to extract what data there may be to give an indication of the question, and the second is to access what preliminary data is now forthcoming even though this does not reflect numbers but only percentages of the sample.



Source: Constructed from Kvalsvig, 1986:Table 5.

Figure 1: Frequency of water collection according to age and sex of the child

In the first instance data on water contact has been reassembled to provide information on collecting water. Although the data in the above table, was recorded in the 1980s (Kvalsvig, 1986), it gives one of the best indications of who is involved in collecting water and at what age. While many who have made a general commentary on the involvement of children in domestic activities have argued that these are gender specific, it is clear from the table that the youngest boys (ranging from younger than six to less than eleven) are almost as fully engaged in collecting water as girls. The sharper gender divide appears to occur after the age of 10. Significantly also the proportion of girls collecting water also starts to decline after this age and it appears that the burden of carrying water weights most heavily on the group aged 6-15 hereafter it declines only to rise again in the age group 31-40.

Research being undertaken on the children's contribution to the well-being of the family by Sharmla Rama and Linda Richter (2005) does promise to give a much clearer view of the location, time taken and number of children collecting water. In their study they found that most households in the SAYP survey either had household or yard connections and only 17 per cent had 'other sources' than communal taps. About 10 per cent of the families reported a source of water a kilometre or more from the household. A common understanding about collecting wood and water is that this is mostly undertaken by girls, but in both activities boys are also involved.

The finding from the 24-hour diary on children's participation in the collection of water in all types of areas showed that of the children reporting that they spent their time collecting water, 58% are girls who spend on average 55 minutes in this activity. The boys spend 49 minutes in this activity.

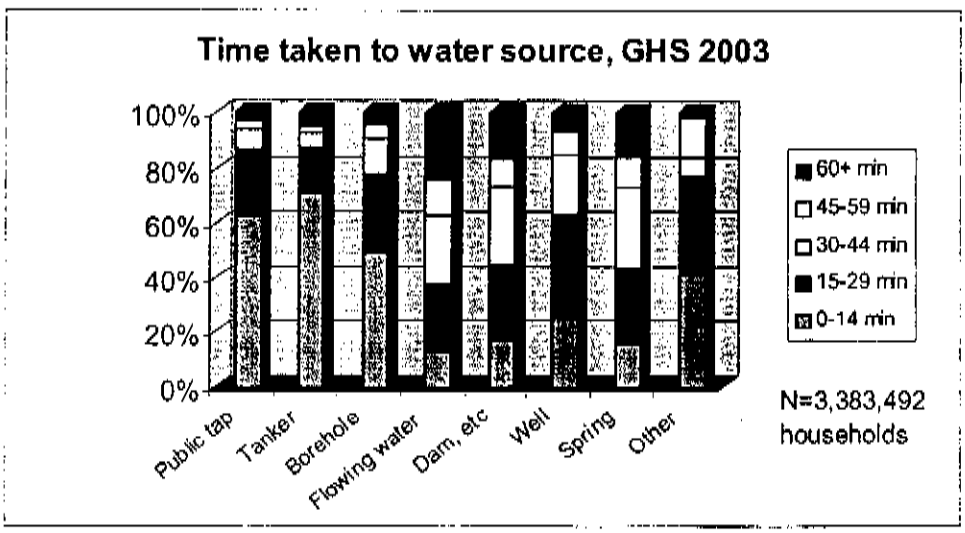
Table 5: Mean Number of Minutes Children spent on the collection of water per day

Gender	Age Categories	Mean Minutes	Number of Children
Boys	10 to 14	49	112
	15 to 17	47	49
Total		**49**	**161**
Girls	10 to 14	54	160
	15 to 17	55	65
Total		**55**	**225**

Source: Rama and Richter from Statistics South Africa, Time Use Survey, 2001 [ASCII]

This research revealed a considerable variation between the time spent by children on the collection of water which ranged from 10 to 270 minutes, although the vast majority, 78.8%, spent up to an hour per day in the activity. Children in 'other rural' areas spent on average 56 minutes on the collection of water, compared to the 40 minutes for children in urban informal areas, 50 minutes for children in urban formal areas and 45 minutes for children in commercial farming areas (Rama and Richter, 2005). From the above analysis, if the same activity of collecting water is undertaken daily this would amount to 6 hrs 25 min a week for girls and 5 hrs 43 min for boys (although analysis below will demonstrate that longer hours are undertaken in deep rural areas). These are considerable times for this demanding activity which is concentrated in 'other rural' areas broadly conceived as tribal areas. Research has, in addition, identified that those people who are not served by a rural water project and dependent on unimproved water sources carry the greatest load (Hemson, 2005).

In Figure 2, analysis is made of the time taken to collect water by water source.



Source: Data analysis conducted by HSRC from GHS, 2003

Figure 2: Time taken to reach water source

The data shows that improved water services, such as a tanker, public tap, or borehole considerably shorten the time taken to collect water, while the longest time is taken to reach flowing water (rivers and streams), dams, and springs.

The data is further in the table below in which the average times are calculated from the GHS data by using mid-points for the different time categories to the water source. This provides a range of average times to various water sources which is ranked.

Table 6: Mean time to water sources

	Mean time to the water source (min)	Estimated total time to collect water (min)
Flowing Water	39.37	88.74
Spring	35.01	80.01
Dam	34.75	79.51
Well	27.31	64.61
Other	22.01	54.02
Borehole	20.27	50.54
Public Tap	16.02	42.04
Tanker	15.22	40.43

The analysis is further pursued by estimation of the total time taken in collecting water; the time to water source is doubled and a modest 10 minutes added for queueing and filling the container. From research in the field the time taken in the latter activity is often considerably longer to unimproved sources as there can be lengthy queues and people collecting water often wait for turgid water, strirred up by immersing the container in the water, to clear.

Despite these reservations it is clear that the time taken to flowing water, springs, and dams is in excess of an hour and even public taps and tankers can take more than half an hour.

The analysis confirms that improved water services, such as yard connections or communal taps within 200m, could reduce the time taken to collect water by those previously accessing flowing water by 50-75% (Hemson, 2005).

HOW MANY CHILDREN ARE INVOLVED IN COLLECTING WATER?

From the Labour Force Survey (LFS), September 2003, it is possible to calculate directly the number of children, 5-17, directly involved in collecting water. This is a decided advance on the SAYP survey which asked a wide range of questions about the activities of children, but from which it is difficult to calculate the numbers of children involved because of difficulties in

weighting the sample. In the LFS this difficulty is overcome as the data in the PERSON file a weight is provided to reflect the total number of people in the South African population.

Altogether 2,345,000 children, 17% of the children aged 5-17, are engaged in this activity which *takes up just under 10 million hours each week* of their time. KwaZulu-Natal has the greatest number of children involved in collecting water (just under 856,000) while the Eastern Cape follows with 753,000, and Limpopo has 380,000 children involved. Although children are also involved in collecting water in informal settlements and commercial farms, the activity is concentrated in the provinces with the remote rural areas. The task of collecting water tends to fall on older children, of all the children in the activity, 32% are in the age group 5-11 and 68% in the age group 12-17.

A series of tables is presented below which provides information on the total number of children in the population, the numbers involved in collecting water, their location according to province, their gender characteristics, and the total number of hours per week involved country-wide in this activity.

From the table below there are 13,4m children in South Africa and of these 2,4m (17%) are involved in carrying water.

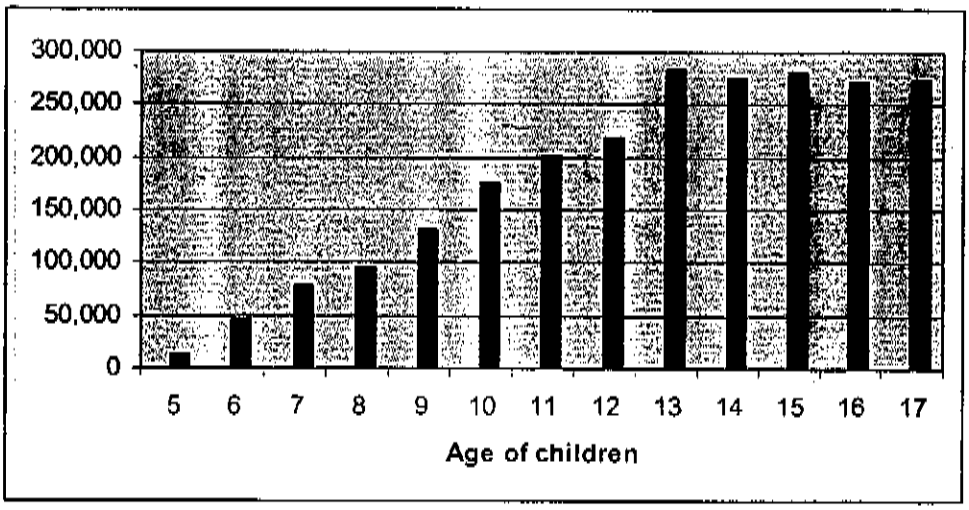
Table 7: Children, 5-17 involved in carrying water per week

	Number	Percent
Children carrying water	2,345,390	17%
Not carrying water	11,093,061	83%
Total number of children, 5-17	13,442,889	

Source: LFS, Sept 2003

The number of children involved in this activity rises proportionately by age from a relatively small percentage of the total number of 5 year olds, for instance, to a plateau from about 13 years of age of just over 250,000 (out of approximately 850,000 in each age category) and each additional year of age of children thereafter does not significantly add to the number of children involved in the activity.

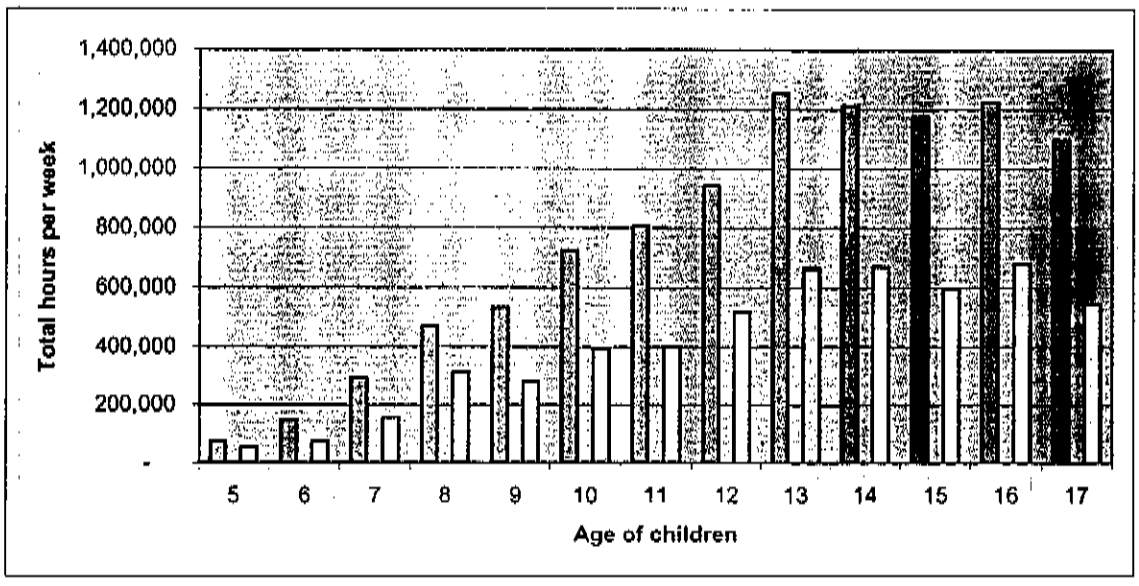
Figure 3: Number of children by age involved in carrying water per week



When the total number of hours undertaken by each child are calculated, just under 10m hours (9,948,306 hours) each week are found to be used by children in collecting water.

The figure below indicates that the number of hours undertaken in collecting water follows roughly the same pattern as the level of participation above as the figures rise almost directly in proportion to the number of children engaged in this activity.

Figure 4: Number of hours taken in collecting water by age per week



Source: LFS, Sept 2003

In the figure above the blue lines indicate the total number of hours taken per week by age and the yellow lines indicate that proportion which is equal to or longer than seven hours a week. By the age of 13 those children who collect water use more than 1 million hours a week in this activity. Roughly 50% of this time falls into the category of seven or more hours a week in this activity.

The children engaged in collecting water are unevenly distributed throughout the provinces.

Table 8: Number of children collecting water by province

Western Cape	16,991
Eastern Cape	753,245
Northern Cape	2,604
Free State	21,592
KwaZulu-Natal	855,943
North West	130,606
Gauteng	37,815
Mpumalanga	118,715
Limpopo	379,733
Total	2,317,244

From the table above KwaZulu-Natal has the greatest number of children involved in collecting water (just under 856,000) while the Eastern Cape follows with 753,000 and Limpopo with 380,000 children involved.

Although boys also collect water, they undertake less of this activity; on the proportion of 40% of the total number of children involved.

Table 9: Proportion of time taken in collecting water by gender

	1-6 hours	7 hours & more	Total
Boys	757,954	170,690	928,644
Girls	1,077,811	310,783	1,388,594
	1,835,765	481,473	2,317,238

Girls are more involved both in the category less than seven hours and more than seven hours. In the latter category of longer hours the proportion of girls rises from 60 – 65% of the children involved.

Table 10: Number of hours involved in collecting water by province

	Total number of hours	Proportion of hours equal or longer than 7 hours	Percentage of 7 hours or longer
Western Cape	29,529	4,820	16%
Eastern Cape	4,455,668	3,074,632	69%
Northern Cape	3,040	-	0%
Free State	57,637	27,396	48%
KwaZulu-Natal	3,387,698	1,472,213	43%
North West	283,429	47,477	17%
Gauteng	64,289	-	0%
Mpumalanga	387,652	181,001	47%
Limpopo	1,279,364	531,380	42%

Although there proportion of hours taken in collecting water for more than seven hours is more or less evenly distributed by age (at about 50% of the total time taken per week), there are significant diffferences when the hours are divided by province. In the table above the Eastern Cape (which has fewer children involved in collecting water) has a considerably higher proportion of children (69%) collecting water for seven or more hours a week. The Free State has the second highest proportion, followed by Mpumalanga and KwaZulu-Natal.

These are the provinces where the longest hours are involved: 5,339,000 hours per week or 54% of the total are taken up by children working seven hours or longer a week. These children are concentrated in the Eastern Cape where 3,075,000 hours are in this category, followed by KwaZulu-Natal, 1,474,000 hours, and Limpopo, 531,000 hours. It is in these areas where there is the greatest need for intervention to reduce the burden on children.

To pursue the matter of long hours from another perspective, the table below presents both the total hours involved in collecting water and that proportion which involves seven or more hours per week. The data is presented by water source.

Table 11: Hours collecting water by water source

	Total hours involved	Proportion of hours equal or longer than 7 hours	Percentage of longer hours
Flowing stream/river	3,588,161	2,432,944	68%
Spring	1,788,289	1,133,144	63%
Stagnant water	300,221	138,737	46%
Borehold off site	793,792	344,270	43%
Other	15,493	6,220	40%
Public tap	2,720,812	1,062,060	39%
Well	423,231	156,741	37%
Water-carrier/tanker	73,866	19,486	26%
Piped on site or in yard	88,121	17,552	20%
Neighbour's tap	129,450	17,036	13%
Borehole on site	2,943	-	0%
	9,935,605	5,338,879	

The data is ranked according to the percentage of hours equal or longer than seven and not unexpectedly the longest hours (68% of the total involved) are found at the water source of flowing streams or river. This is considerably reduced in respect of collecting from water carriers, on site connections or the neighbour's tap; although there are not many hours involved here. The great number of long hours is found in the categories flowing water, springs and public taps; the latter most probably among those accessing water from this source from households further than 200 metres.

The children involved in collecting water are also deeply involved in collecting wood and dung although for fewer hours a week. In the table below just less than half of those children involved in collecting water also collect wood and dung.

Table 12: Number of children collecting water who also collect wood

	Water only	Wood as well
Less than 7 hours	650,292	1,184,422
7 hours or more	226,422	255,055
Totals	876,714	1,439,477

The children who are involved in carrying water thus face a heavy burden of domestic chores.

In addition it was found that of those children spending less than 7 hours collecting water, 65% were also involved in collecting wood, and of those spending more than 7 hours collecting water, 53% were also involved in collecting wood. Of those who spend less than 7 hours collecting water *many more are also engaged in collecting wood*; 650,000 only collect wood while 1,184,000 collect both water and wood. This seems to indicate some greater division of labour within the household, with those spending less time collecting water being expected to spend more time collecting wood. The relationship between the two activities needs futher investigation.

DOES SCHOOLING SUFFER?

The range of child rearing strategies with respect to child housework and support for schooling in South Africa depends to a large extent on the living circumstances of the families concerned. Parents in urban and peri-urban households tend to encourage reading and writing activities in their children from an earlier age than rural parents who themselves have little exposure to literacy (Dawes et al, 2004:70-71 and Kvalsvig et al, 1991).

In the study on indicators of South African children's psychosocial development quoted above (Dawes et al, 2004), parents from three different communities responded very differently to questions about the ages at which children were expected first to recognise letters, then to learn to read and finally to read for pleasure. Urban middle class groups put forward the earliest ages for these activities, peri-urban informal settlements were intermediate and rural parents thought that these activities would start late. While parents in poor communities expressed an awareness of the need to help their children improve their educational performance, low literacy rates and little time for caregivers to supervise homework translated into very little real support for these activities. On the other hand, in questions dealing with assistance in the home, the rural groups expected children to assist from a much earlier age than those in urban settlements or middle-class environments. While the provision of water resources might not immediately change such established child-rearing strategies, clearly migration towards urban settlements results in a change in the necessity for children to perform household tasks, and ultimately in greater parental support for academic activities.

Even within rural communities there are dynamics at work which cause some people to amend their child rearing practises to include more literacy-related activities although the tendency remains for most joint caregiver/child activities to centre around household activities (Kvalsvig et al, 2003). A study of a family literacy project in the mountainous areas

of KwaZulu-Natal compared groups of women who had joined family literacy groups facilitated by the project with women from the same community who had chosen not to join. The operating environment for the project is changing in many respects. On the one hand there is a sense that a better life is possible following the change to a democratic government in 1994; that educational and employment opportunities are no longer deliberately withheld from the poor and disenfranchised. On the other hand there is confusion and dread as the HIV/AIDS epidemic threatens the health and well-being of this population. Both children and adults urgently need new windows on the world to help them make informed choices about how to conduct their lives. They need the wider access to information that literacy can bring.

The caregivers who had been members of literacy groups the longest showed considerable skill and enthusiasm for engaging children in discussions which would extend their knowledge and understanding of the world around them. The newcomers to literacy groups already displayed some of these attitudes and skills compared with women who were not involved with the project, although to a lesser extent. This progress is clearly of great importance in the lives of rural women and children.

Children in poor families are disadvantaged as their families find that schooling is a draw on family resources in terms of the necessary school fees and uniforms. In addition in discussion with children a link is made between activities in the home, particularly fetching water, and inability to complete homework, a point which will be substantiated below.

In discussions with children (Dawes et al, 2004b) children responded to the problem of a child not completing homework by saying she liked to play, was lazy, or finally that she was fetching water from the river instead. The unpublished data associated with a contemporary study of rural schooling conducted by the HSRC (Nelson Mandela Rural Schools Project. 2004) provides evidence that a considerable number of children in remote rural areas are involved in collecting water both before and after school. In fact children in their diaries list these activities as those they associate with school. This activity is one of many undertaken by children, mainly girls, to support the family.

Interviews were conducted with school children of about 10 years of age in three remote KwaZulu-Natal communities. The interviews with children provide an assembly of an entire range of domestic activities for both girls and boys, but the one activity which appears most often is that of collecting water. In addition undeveloped water sources add considerably to the time taken by learners who are trying to keep up with their school work at two levels; firstly in terms of the sheer amount of time taken and secondly because of the implications for their health. In these two accounts there is a link between water problems and school attendance.

> We drink from one pond-those who come from Msunduze, Vungama and Manyoni we drink together. So the queue is ever long. Sometimes you return home late at night. We have no water pumps or water pits.
>
> *How safe is the water you drink from the pond?*
>
> It is not safe because the cattle also drink there. If you get sick, you have a problem because there is no clinic, in fact there is but it operates once a month or sometimes it does no operate at all in months.[8]

Learners also regard water essential for the personal hygiene and appearance.

> We have no water. What we grew in our gardens has died because there is no water for watering our crops. That is another problem we are facing.

[8] Interview With A School Dropout.

How does scarcity of water negatively impact on education?

> It does have a negative impact because they queue out there and take long to come back home which means on their return they can no longer study because it is too late. They cannot even be adequately clean at school.[9]

The diaries of children and interviews with parents reveal that there are additional burdens on children who are, at times, required to collect water for educators at school as well as their domestic activities. At a parent's workshop in Manyoni the following grievances were aired:

> Sometimes children are "asked" to fetch water from the river, and if they are reluctant or they refuse to go for whatever reason, they are threatened with failure at the end of the year.
>
> My daughter who is a learner at this school used to carry 20/25litre container to fetch water from the river. This river is far from home. This water is not for the benefit of the school, it not drunk by fellow learners, but it is for educators. My husband saw this, & he was furious. He talked to my daughter about this issue, and said to her that she must tell her educators to stop this practise. He also went to school himself, and asked educators to stop sending his daughter to the river. Educators stopped from that day to send my daughter to the river. Other girls are still doing it.[10]

At this school the parents complained that there was a high level of educator absenteeism and that nothing was being done about this. Experiences such as this blunt the enthusiasm and hope of poor families for the education of their children.

An important consideration in relation to schooling is that of parasite infections. Research into the effect of water contact on the health of children has drawn a clear link between water contact (as involved in gathering water from rivers and streams) and parasitic infections such as bilharzia. Most rural schools don't have adequate handwashing facilities and a low level of hygiene is linked to high levels of worm infestation, particularly in the coastal areas. These issues have generally not been given sufficient attention in the health and schooling of children, as parasitic infections can have an effect on social and cognitive development. Policy is being taken by the Department of Health[11] on this and other child health questions, but, unfortunately, past pilot projects to treat children at school have succumbed to poor departmental commitment and ambiguous attitudes from teachers.

APPROPRIATE TECHNOLOGY

There is a growing literature on the question of appropriate technology in delivery of piped water to the rural poor. In South Africa there is considerable debate about the level of service and alternative technologies in water service delivery in rural areas, and some experimentation in the more remote districts. These discussions are often conducted among engineers and administrators looking to reducing the cost of delivery and simplifying maintenance (see Vosloo and Ngwabi, 1997; Faulkner and Lenehan, 1997). The debate is, however, multifold, as the conclusions have to be discussed with rural populations which generally favour a level of service which provides water as close as possible to the

---

[9] Manyoni, KMOH-18 Mother of a dropout.

[10] Nelson Mandela Rural Schools Project. 2004. Participatory Data, Experiences of schooling: Manyoni Community, Parents Meeting.

[11] Unfortunately the policy document on schools is not available on the Department of Health's website, but the following is stated in the document *Strategic Priorities for the National Health System, 2004-2009*: "A school health policy with implementation guidelines and a Youth and Adolescent Health Policy have been developed to provide strategic directions regarding the health care of school-aged children, youth and adolescents." http://www.doh.gov.za/docs/policy/stratpriorities.pdf.

homestead. The demand from rural communities is universally for yard connections, which secures the greatest consumption for the least human effort. This is the most expensive option and negotiations with local communities usually then takes the form of discussions towards an eventual agreement about what level of service is affordable to the local community.

The question of affordability has not been removed by the policy of free basic water, as the higher levels of service (such as yard connections) usually require additional household capital expenditure. The rural population in South Africa, unlike that in many other African countries, is well aware of the level of service in urban areas and aspires at least to a reticulated system with communal taps in easy reach. Despite this there has been some experimentation with simply maintained boreholes and handpumps directly linked to households in some remote rural areas. This has the advantage of providing a 'free basic service' of unlimited supply for both domestic and farming purposes.

In a recent paper Still et al (2004) describe the use of tube wells, hand augured and fitted with bucket pumps, in the coastal terrain of Maputoland where the soil is not compacted and the water table relatively accessible. Since 1998 over 550 tube wells have been installed, and most of these are owned and maintained by individual families, even though the water is generally shared amongst several families. An examination of wear and tear shows that the mechanism is relatively robust but could be improved. Based on these trials a further 100 wells are being constructed and fitted with rope and washer pumps.

These issues have been discussed in local communities and reported on at conferences such as those of WEDC, the Water Engineering and Development Centre. Two papers are worth reviewing here. In the first, Faulkner and Lenehan (1997) argue that a sense of ownership is critical to the sustainability of a project. The boreholes constructed in KwaZulu-Natal were of considerable depth (up to 100m) but tended to fail as local communities did not have a sense of ownership in comparison to Zimbabwe. They found, by contrast, that the spring protection and development which involved a simple process of constructing a box around the spring and piping water collected to a storage tank with an attached standpipe or tap was much more successful. This simple technology, which involved community participation in construction, engendered a high level of community interest. The capital costs were less than a quarter of the cost of a borehole installation with a handpump and carried negligible maintenance costs. Spring protection here is strongly supported at two levels; firstly at the level of cost, and secondly at that of engaging community involvement.

It has to be recognised, as the authors do, that alternative technologies are often limited to specific contexts i.e. the low water table in coastal areas, and cannot readily be replicated in other areas.

In the second paper reviewed here, that of Vosloo and Ngwabi (1997) it is argued that capital costs could be lowered even with piped water to standpiptes without increasing operation and maintenance costs. The authors argue that water consumption will rise from between 5 to 10 litres per person per day (lpppd) to 25 lpppd to an eventual 50 lpppd. The authors argue that the capacity of storage reservoirs should be increased at the inception of a project to more than two days supply to save later expensive additions. They also argue that bulk pipelines should not be at the widest guage to anticipate 'realistic and not optimistic future water demands' as the design life is generally 20 years (p307). The diameter of reticulation pipelines should, however, not be reduced below 50mm. The authors argue that the numbers and size of valve and meter chambers should be reduced except for bulk meters. Most controversially they argue that pipelines should run parallel to existing roads and tracks to within 200m and not to each dwelling: this could reduce the required pipelines by as much as 50 per cent. There are other proposals to effect an overall 40 per cent reduction in the length of pipelines with a corresponding saving in costs (p308).

Vosloo and Ngwabi conclude that the most significant saving is in reducing the length of reticulation pipelines; the most controversial aspect of this is, however, that the connection costs (of those who can afford yard connections) rises to individual consumers who are further away from existing pipelines. They conclude: "The level of service will depend on what the consumer can afford to pay."

These considerations are being borne in mind in the approval of the business plans for water projects by DWAF and now MIG. At one level the choice of technology is tied to that of sustainability. A key question is the ability of water systems to continue to operate over time without substantial and costly intervention from service providers.

The level at which sustainability is discussed is changing from that of the village or community level to that of the local municipality and this can, in turn, affect the technology employed. The provision of water services to rural communities in South Africa has evolved from community water projects to municipal services. In the first instance sustainability was sought at the village or community level; that the community would make provision for some part of capital costs, would be fully involved in construction, and would take responsibility for the operations and maintenance once a project was completed. This community development involved the transfer of administrative and social skills and responsibilities to the water committees which then were regarded as directly responsible for the proper functioning of the project. With the Water Services Act No 108 of 1997 the entire responsibility for water services in urban and rural areas has passed over to water service authorities which are by definition the local municipalities.

The actual transfer of schemes to municipalities is taking time and in some areas has yet to be completed, and there have been reports that there are high levels of breakdown in rural projects. While this transfer was taking place a survey of KwaZulu-Natal water projects in 2003 found that of the 23 projects surveyed, 78% were working at one level or another. On the basis of 'standalone' sustainability, measured by the local community taking full responsibility for the operations and maintenance of projects, only 22% of the projects were sustainable. More disturbingly 56% of the projects were either not working or working below RDP standards. The latter is a major concern as in a number of projects there is evidence of social exclusion with a section of the population beyond 200m or unable to access water because they are too poor or projects which are designed to provide yard connections only benefit those who can pay the quite high cost of connection. Another issue seems to be that some projects which are registered as complete are really not complete. It seems these were originally designed to provide for a community in phases, but after the first phase is initiated project funding slows and modifications are made to the original plan. These changes have ended in substantial parts of a community being excluded (summary of conclusions from Hemson 2003).

External evaluation and intervention can be important in ensuring that and in addition, following on the research 3 out of the 5 projects which were not working at the time of fieldwork are now working. These shifts from breakdown to renewed operation were affected by the intervention of local municipalities particularly to pick up the bills for electricity and get the water flowing again. The costs of operation which were exceptionally difficult for local communities to meet on the basis of local contributions were not a real obstacle for local municipalities.

In many cases local municipalities are endorsing a 'mixed' system of technologies and delivery. The Zululand District Municipality has a general policy of supporting yard connections as an appropriate level of delivery in rural areas, even though there are, at times, controversies within communities as the better off sections are happy with the system while the poorer find they cannot access communal taps (as in the case of Hlulhuwe, Hemson, 2003). While it follows this general policy the District Municipality is implementing

'rudimentary' water projects which do not provide reticulation or 25 lpppd in an effort to get some clean piped water to distant communities.

In addition there are interventions in specific localities and on a small-scale to assist in the transport of water from water sources to households. The Hippo Water Roller Project is designed to distribute rollers which carry 90 litres of water and are rolled along the ground like an old-fashioned lawnmower. The drum capacity of 90 litres can be compared to the 25 litres carried by women and children.

> Instead of being trapped into this routine, the Hippo Water Roller frees women and children from this onerous task. When pushed, the weight of the roller is approximately 12kg, which enables children to roll the container home with relative ease (IBM, 2005).

This is one of the few provisions in technology which relates directly to easing the burden on children in collecting water.

WHAT SOLUTIONS ARE PROPOSED?

There is increasing debate about the various approaches to ending child labour internationally. In an article appearing in the Economist (2 July 2004) it is argued that direct attempts to limit child labour could be counter-productive and that the strategy to end child labour depended on economic growth rather than campaigns. Others have argued that without publicity and a drive to end the worst forms of child labour the phenomenon will live on blighting the lives of millions of children internationally. In relation to children drawing water the solutions which are proposed are well within bounds of existing policy in developing countries and depend largely on the costing of water projects in the communities involved. There appears no contradiction between research into the nature of the problem, campaigns and policy; the question is one of resources and prioritisation of the problem.

Those who are involved in researching the problem of child labour tend to argue that the solutions should also involve children. In an illuminating study of child labour in Zimbabwe, a reflective introductory essay offers candid criticism of development practise that pays insufficient attention to children's agency. The book *Earning a Life: Working Children in Zimbabwe* makes a strong case for children's participation, describing the ways that charitable projects often proceed without sufficiently consulting with the beneficiaries of aid, resulting in negative impacts on communities. It raises questions asked by advocates of participatory research for several years now, which bear repeating: "How did we interact with the people in these villages? How many of our project staff understood the language of the communities in which we were located? Did we take time to listen to their perceptions and views?" (Bourdillon, 2000: xiii).

In this publication it is argued that if working children were more visible and respected as workers, "then forestry officers might speak to groups of children who have the job of collecting firewood, and water engineers might consult with the young people who collect the household water to ask where they should site a well or what type of equipment would be best". Although this approach appears somewhat elusive when there are, at times, difficulties even in women's full participation in decision making in relation to water services, there is growing awareness that children's opinions could be influential within the family.[12] The argument proposes that agricultural advisors, for instance, should focus agro-ecological education efforts on children and adolescents as well as their parents. Although this is not

[12] A recent article in a wildlife magazine argued that the children of farmers could influence their fathers not to poison raptors.

generally the practise in Africa, approaches to children are more common is other contexts such as in Latin America.

In South Africa the participation of children in public affairs relies to a great extent on quotation from Nelson Mandela which reads as follows:

> Nothing will give me more fulfillment than the knowledge that we have sacrificed to put our youth in a position where they can decide the future of our country on the basis of equal opportunities (quoted in IDASA, 2005).

The argument is made in an IDASA publication that children should have a greater opportunity to participate and examples are drawn from projects mainly in Cape Town but also, importantly, in Msinga/Weenen. In the latter place the children are involved with the Children's Voices project with ChildrenFirst – a journal on issues affecting children and their carers (IDASA, 2005).

Participation by children in describing the conditions in which they live and their hopes and anticipation for the future should be central to the solution to the problem of children in deep rural areas spending long hours in collecting water.

COMMUNITY PARTICIPATION IN LOCAL GOVERNMENT

Unfortunately no literature directly addressing the questions could be located on the processes involved in the prioritisation of water projects beyond the power of local municipalities to undertake this task. The current literature on delivery concentrates on the health effects potentially available through improved delivery and easing the burden on women (see Hemson, 2005) rather than recognising the contribution of children.

Fundamental legislation in South Africa, however, speaks the language of empowerment and participation. In the preamble to the Municipal Systems Act, for instance, the goal of the law is stated as follows: "to empower the poor and ensure that municipalities put in place service tariffs and credit control policies that take their needs into account by providing a framework for the provision of services".[13] The Act does potentially provide for extensive community participation in policy and decisions in Chapter 4 in particular in the preparation, implementation and review of the Integrated Development Plan (IDP). There is also provision for the community to monitor and review progress in the IDP, in the preparation of municipal budgets, and in strategic decisions relating to services.[14] This participation is specified to take place through political structures and 'other appropriate mechanisms, proceses and procedures established by the municipality', through councillors and other provisions.[15] Public hearings and meetings may also be used.

Policy provision, particularly in the water sector, speaks to a number of issues to strengthen the involvement of civil society by undertaking the following, fairly extensive, commitments:

- engaging civil society organisations in policy development, research and advocacy, and assisting with planning, implementation and management of programmes and projects at community level;
- supporting the development of capacity in civil society organisations;

[13] Act No. 32, 2000 Local Government: Municipal Systems Act, 20 November 2000.
[14] See Section 16 of the Act.
[15] Section 17 of the Act.

- encouraging civil society organisations to help monitor sector performance at all levels;
- engaging civil society organisations in creating a link between government and local communities;
- engaging capacitated community-based organisations to manage water services projects at the local level, where appropriate; and
- assisting in the mobilisation of funds for non-government and community-based organisations where appropriate (DWAF, 2003: S3.8).

The democratic traditions of the South African resistance to apartheid and the current levels of civic organization in poor communities demand attention to the representations and voices of the poor particularly in deep rural areas and informal settlements.

Voice and accountability have become key concepts in the advocacy of good governance, and ordinary people challenge or complain about policies that adversely affect their interests. Democratic regulation and the forms of regulation anticipated in the Strategic Framework for Water Services certainly anticipate high levels of participation:

> A regulatory monitoring framework should also recognise that consumers are in the best position to monitor the effectiveness of water services provision. They are the first to experience the effects of poor, inadequate or absent services. Therefore, the most important and effective monitoring strategy for the sector is strengthening the voice of consumers (DWAF, 2003:60-61).

There is an argument forcefully made, that in addition to participation of the poor generally, there should be specific provision for women. As the Strategic Framework states:

> Every effort must be made to ensure the adequate and meaningful participation of women in consultation forums (DWAF, 2003: 42).

The participation of women in water committees in rural areas, the limits and possibilities of transforming gender relations through the policy of women having 50 per cent of the seats on these bodies, and the effect on the sustainability of projects is extensively examined by Hemson (2002). He concludes that the rule has encouraged women's participation and assisted in strengthening the status of women in community affairs, but that the results are effectively below expectations and additional supportive interventions are needed.

There is, regrettably, a lack of analysis and therefore of policy on the question of children involved in long hours in collecting water. The *Strategic Framework* for the water sector, a fundamental policy document, does not mention children collecting water, but it does set out various proposals for public participation in water delivery. These references are to the role of civil society and to the role of specialised bodies such as the Provincial liaison committees. The latter are designed to provide a forum for liaison between DWAF and other provincial departments on water-related matters. "They identify priorities and advise on the implementation of water and sanitation services investments" (DWAF, 2004:23-24). At the local level there are the water committees (which do have a high level of participation by women, see Hemson, 2002) and the incipient Ward Committees which provide for direct communication particularly with ward councillors.

Through these means, and in direct discussion with local government, there is the basis for raising the question of children spending long hours collecting water.

CONCLUSION

The literature on the specific conditions of children collecting water is very thin and the categories of domestic work undertaken by children often fuzzy. The surveys to be conducted in this project will be largely ploughing new ground; not only in detailing the hours spent by children from households of different characteristics but also in assessing the impact on households and individuals, and on schooling. This research will be devised to produce a general method of prioritising water projects to ameliorate children's work.

The planned surveys of remote rural areas will investigate these issues but preliminary research into the relationship between demanding domestic activities and the evidence of qualitative assessment in communities cited in this review indicates that excessive hours affect school work (evidence cited in Clacherty and Budlender, 2004). Although this type of child labour is often considered non hazardous for children, it does tend to deny or delay the possibility of schooling or affect educational performance. These relationships will be thoroughly examined in the surveys.

In addition little attention has been paid to date to any possible long term physiological damage which may be associated with carrying water. Research into the effect of water contact on the health of children has, however, drawn a clear link between water contact (as involved in gathering water from rivers and streams) and parasitic infections such as bilharzia. These issues have generally not been given sufficient attention in the health and schooling of children, as parasitic infections can have an effect on social and cognitive development.

Through a review of the literature and analysis of the datasets assembled in various surveys it has been possible not only to identify the areas where the activity of children collecting water is concentrated, but also the numbers and the total number of hours involved. This is an important achievement in preparation for the next phase of the project in engaging with stakeholders and in advocacy around the prioritisation of the amelioration of long hours of children in collecting water. Regrettably it has not been possible to make international comparisons as there is very little published in this field.

The review has also discussed some of the impacts that water collection is having on the household and child, even though much of what is published is essentially qualitative and depends on a limited number of interviews and observations. Further analysis can be undertaken of the SAYP data in particular in relation to effects of heavy involvement in collecting water on school achievement. In the literature late starting at school, irregular attendance, punishment for lateness, incomplete homework, and exclusion for non-payment of school fees are mentioned. Again, unfortunately, there is little published in relation to the direct impact on children apart from the water contact research conducted (even if dated) in relation to parasitic infections and bilharzia. Research is needed particularly in the physiology of children who are most involved in this activity.

The literature and information on appropriate technology has revealed the debates on costs and benefits in relation to the operations and maintenance of water schemes rather than an accent on the release of children from the task of collecting water. There are, however, projects which do relate to easing the burden in transporting water through the use of barrels.[16] The literature on local municipal innovation in delivery with the use of simple wells in certain environments has been reviewed and this does have possibilities, but only in limited contexts.

[16] This is a limited intervention as it appears that these barrels require a fairly level topography without many stones, a condition which is not generally found in Limpopo. Personal communication, Prof Paul Jagals.

South African legislation and tradition does provide extensive participation in local government and this has been reviewed here. Many of these rights and practices are, however, in an embryonic stage and there is considerable unneveness in the use of ward committees, for instance. These do provide the basis for engagement with local government on the question of children collecting water at two levels; firstly through the official structures set out in statutes, and secondly through the intervention of civil society. The prioritisation of projects is a service delivery issue which should be addressed in the processes leading up to the IDPs and in their implementation, and extensive provision is made in law for participation and monitoring.

It has been difficult to address the requisite strategies for differences by gender in collecting water. The literature and data has been analysed, and it appears that boys do also participate in this activity but not at the same level and intensity as girls.

There is a limited literature in best practices on delivering water to communities and the context has changed fairly radically with the transition from community projects to local municipal services. The elements of community participation, appropriate technology and health impacts have been mentioned. The task of the project is to engage in the next phase with local experience to understand what has been gained over the last ten years in this field.

BIBLIOGRAPHY

Admassie A. 2002a. Allocation of Children's Time Endowment between Schooling and Work in Rural Ethiopia. Center for Development Research (ZEF), Bonn. Website: www.zed.de/publications.htm

Admassie A. 2002b. Explaining the High Incidence of Child Labour in Sub–Saharan Africa African Development Review, vol. 14, no. 2, pp. 251-275(25).

Alexander, Greg R. Our Legacy for Leadership in MCH. Maternal & Child Health Journal; Sep2003, Vol. 7 Issue 3, p145, 6p

Bourdillon, Michael (ed.) (2000). Earning a Life: Working Children in Zimbabwe. Harare: Weaver Press.

Carter, Michael R. and Julian May. 1999. Poverty, livelihood and class in rural South Africa. World Development 27(1):1-20.

Child Abuse Review. 1999. Editorial: Respecting Rights and Promoting Welfare. Vol. 8: 71-74

Clacherty, Glynis and Debbie Budlender. 2004. 'When I finish my work it is after six. My heart is so sore because I have not played.' The Children's Participation Process Towards a South African Child Labour Programme. Department of Labour and Save the Children Sweden.

Dalton PR & Pole, D. (1978) Water-contact patterns in relation to Schistosoma haematobium infection. Bulltin of the World Health Organisation, 56, 417-426.

Dawes, A, Bray, R, Kvalsvig, J, Kafaar, Z, Rama, S. (2004) Indicators of South African children's psychosocial development in the early childhood period. Phase3 Report for UNICEF South Africa. Pretoria: HSRC.

Dawes, Andy, Jane Kvalsvig, Sharmla Rama & Linda Richter. 2004. Going Global with Indicators of Child Well-Being. Indicators of South African Children's Psychosocial Development in the Early Childhood Period: Phase 1 Report. UNICEF South Africa.

Dawes, Andy, Rachel Bray, Jane Kvalsvig, Zuhayr Kafaar, Sharmla Rama, & Linda Richter. 2004. Going Global with Indicators of Child Well-Being Indicators of South African Children's Psychosocial Development in the Early Childhood Period. Phase 3 Report for UNICEF South Africa. HSRC: CYFD.

Dawie Bosch & Associates, 2002. Towards a National Child Labour Action Programme for South Africa. Discussion document prepared for Department of Labour. Available [online]: http://www.labour.gov.za/docs/legislation/bcea/index.html.

Department of Water Affairs and Forestry (DWAF). 2003. Strategic Framework for Water Services, DWAF, Pretoria.

Desmond C & Kvalsvig JD (2005) Evaluating replacement child care arrangements. Report for the Rockefeller Brothers Foundation. In preparation. Pretoria:HSRC.

Deverill, Paul. 2000. Designing Water and Sanitation Projects to Meet Demands - The Engineer's Role. Available at www.lboro.ac.uk/wedc/projects/ d4d/d4d-background-paper.doc

Economist. 2 July 2004, Sickness or symptom? Vol. 370, Issue 8361.

Edmonds, Eric V. December 2003. Does Child Labor Decline With Improving Economic Status? . Nber Working Paper Series Working Paper 10134. http://www.nber.org/papers/w10134

Faulkner, Richard, and Antony Lenehan. 1997. Options for rural water supply. 23rd WEDC Conference Durban, South Africa, 1997.

Foster, G. 2000. The Capacity of the Extended Family Safety Net for Orphans in Africa. Psychology, Health & Medicine, Vol. 5, No. 1,

Goslin, D.A. 1969. Handbook of Socialization Theory and Research (Chicago, Russell Sage Foundation).

Guarcello, L., S. Lyon F. Rosati. January, 2004. Child Labour and Access to Basic Services: Evidence from five Countries. UCW - Understanding Children's Work Project: A joint ILO-UNICEF-World Bank research effort

Harvey, P.A. and S.M. Kayaga. 2003. Sustainable Handpump Projects in Africa: Report on Fieldwork in South Africa, May 23 – June 6, 2003. Water, Engineering and Development Centre, Loughborough University.

Heady, Christopher. 2003. The Effect of Child Labor on Learning Achievement. World Development Vol. 31, No. 2, pp. 385–398

Hemson, David. 2002. 'Women are weak when they are amongst men': participation in rural water committees in South Africa. Agenda, 52:24-32, 2002.

Hemson, David. 2003. The sustainability of community water projects in KwaZulu-Natal. Synthesis report and ten district reports undertaken for DWAF.

Hemson, David. 2003. The sustainability of community water projects in KwaZulu-Natal. Synthesis report and ten district reports undertaken for DWAF. 120pp

Hemson, David. 2005. Easing the burden on women? Water, cholera and poverty in South Africa. Chapter in Poverty and Water, forthcoming publication of CROP.

IBM. Hippo Water Roller Project. Accessed February 2005 at http://www-5.ibm.com/za/community/donations_2003.html#hippo

IDASA. 2005. Children participating in governance. Available on IDASA website.

ILO. 1999. National Child Labour Survey Country Report: Zimbabwe. Available from: http://www.ilo.org/public/english/standards/ipec/simpoc/zimbabwe/report/index.htm

ILO. 2003. The National Child Labour Action Programme for South Africa. Final Draft for consideration by government departments and other stakeholders. Draft 4.10, October 2003. Department of Labour.

Kvalsvig, J, C Liddell, P Qotyana, A Shabalala & A Reddy. 1991. Communication and teaching in the home; a study of Zulu and Sotho preschoolers. Early Child Development and Care, 74, 61-81.

Kvalsvig, J.D. & C.H.J. Schutte (1986) The role of human water contact patterns in the transmission of schistosomiasis in an informal settlement near a major industrial area. Annals of Tropical Medicine and Parasitology, 80, 13-26.

Kvalsvig, J.D., Cooppan, R.M. et al. (1991). The effects of parasitic infections on cognitive processes in children. Annals of Tropical Medicine and Parasitology. 85(5): 551-568.

Kvalsvig, JD (1986) The effects of Schistosomiasis haematobium on the activity of school children. Journal of Tropical Medicine and Hygiene, 89, 85-90.

Kvalsvig, JD, Appleton, CC, Archer C, Mthethwa, P, Memela, C, Mpanza, JT, Mweni, SL, Ngcoya, M, Nkomokazi, J, Qotyana,P (2001) The KwaZulu-Natal parasite control

programme, 1998-2000. Report prepared for the KwaZulu-Natal Department of Health. University of Natal: Child Development Programme.

Kvalsvig, JD, Qotyana, P, and McClennan-Smith (2003) Bringing literacy skills to young children:A qualitative evaluation. Report to the Family Literacy Project. Pretoria: HSRC.

Mensch, B.S.; Bruce, J.; Greene, M.E. 1998. The uncharted passage: Girls' adolescence in the developing world (New York, The Population Council).

Mturi, Akim J. and Nompumelelo Nzimande. March 2003. HIV/AIDS and child labour in South Africa: A rapid assessment: The case study of KwaZulu-Natal. Paper No. 4 IPEC/ILO School of Development Studies, University of Natal, South Africa.

Mturi, Akim, Julian May and Nina Hunter. June 2003. Vital indicators of children in rural KwaZulu-Natal. School of Development Studies, University of Natal, Durban in collaboration with the Department of Social Welfare and Population Development and STATTSA.

Mwamadzingo, Mohammed, Ouma Mugeni, and Harriet Mugambwa. 2002. Unions and Child Labour in Uganda A Workersí Education Handbook. Published by the Bureau for Workers' Activities of the International Labour Organisation in co-operation with National Organisation of Trade UnionsTrade

Ncube, W. 1998. "The African cultural fingerprint? The changing concept of childhood", in Ncube, W. (ed.): Law, culture, tradition and children's rights in eastern and southern Africa (Brookfield, US, Aldershot; Singapore and Sydney, Ashgate Publishing Company).

Nelson Mandela Rural Schools Project. 2004. Participatory Data: Description, Analysis and Presentation. Education Policy Consortium: Wits EPU, CEPD, EPU Fort Hare, EPU Natal, CEREP.

Poswell, Laura and Morné J. Oosthuizen. 2003. Child Labour And Development In South Africa: A National Policy Study Development Policy. Research conducted by the Research Unit (DPRU), University Of Cape Town, Cape Town, South Africa for International Labour Office (ILO) International Programme On The Elimination Of Child Labour (IPEC).

Rama, Sharmla and Linda M. Richter. 2005. Children's Household Work as a Contribution to the Well-Being of the Family and Household. Unpublished manuscript.

Ravallion, M. and Q. Wodon (1999), 'Does Child Labour Displace Schooling?: Evidence on Behavioural Responses to an Enrolment Subsidy', World Bank Working paper 2116. Washington DC.

Robson, E. (2004) Children at work in rural northern Nigeria: patterns of age, space and gender. Journal of Rural Studies, 20, 193-210.

South Africa. 2000. Act No. 32, 2000 Local Government Municipal Systems Act.

Sparrow, John. 8 May 2003. Home-based carers help protect Lesotho's orphans . http://www.ifrc.org/docs/news/03/03050601/

STATSSA. 1999. The Survey of Activities of Young People, SAYP. Dataset available [online]:http://www.ilo.org/public/english/standards/ipec/simpoc/southafrica/index.htm.

STATSSA. 2000. Child Labour in South Africa. Available [online]: http://www.ilo.org/public/english/standards/ipec/simpoc/southafrica/index.htm.

STATSSA. 2001. A survey of time use: How South African women and men spend their time. Authors: Debbie Budlender, Ntebaleng Chobokoane, and Yandiswa Mpetsheni.

STATSSA. 2001a. The Survey of Activities of Young People in South Africa 1999: Country Report on Children's Work-Related Activities. Pretoria: own publication.

STATSSA. 2001b. The Survey of Activities of Young People in South Africa 1999: Tables on children's work-related activities. Pretoria: own publication.

Still, D.A., S.R. Nash and M. F. MacCarthy. 2004. South African experience with hand augered shallow wells in coastal aquifers. Paper presented at the International Water Association Water and Wastewater Management for Developing Countries (WAMDEC) Conference, 28-30 July 2004, Victorua Falls, Zimbabwe.

Still, David. 2001. Rural Water Supply In South Africa. Are We Getting Value For Money? The Influence Of Technology Choice. Paper to be presented at the DWAF Appropriate Technology Conference, Misty Hills, 22/23 November 2001.

Vosloo, A.P. and A.M.M. Ngwabi. 1997. Cost effective designs for rural water schemes. 23rd WEDC Conference Durban, South Africa, 1997.

Wall, Kevin. 2004. Franchising In The Water Services Sector In South Africa. WISA Conference.

Webster, Michael. 1999. Effective demand in rural supply: technical and financial implications for designing to meet demand. WEDC, Loughborough University

CONCEPTS AND DEFINITIONS

Child Labour: Any work performed by children which is detrimental to their health, education, physical, mental, spiritual, morale or social development.

Child Work: Normal work given to children as part of social upbringing and learning skills in the process of growing up for future benefit, in other words it should enhance the child's development than being exploitative. This usually includes school work or work of domestic nature or household chores in their own parents' or relatives' homes where they usually reside. The number of hours should be taken into consideration here since too many hours will constitute child labour.

Child: Any person 5 to 17 years of age.

Chore: disagreeable chore, disagreeable task, duty, stint.

Cognitive: Awareness with perception, reasoning, judgement, intuition and memory, the mental process by which knowledge is acquired.

Economic Activity: The supply of labour for the production of goods and services intended to be sold or supplied to other units for economic gain.

Head of Household: Is a usual member of the household who manages the day to day running of household activities and its members, and is considered as such by the household members.

Household: Is a person or a group of people related or not, who usually live, cook and eat together.

Non-economic activity: There is no commonly shared definition of how many hours of household chores constitute child labour in a home where a parent or grandparent or guardian is present. The ILO does regard excessive household chores and family care activities as child labour. It also recommends that household chores in the family home (where a parent or grandparent or guardian is present) are counted as child labour if it takes seven hours or more of the child's time each week.

Physiology: The study of the mechanical, physical, and biochemical functions of living organisms