



Young drawers of water: The burden on children in rural South Africa

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Introduction

- The HSRC study for TECL (Programme Towards the Elimination of the worst forms of Child Labour) conducted on children carrying water to assess the potential impact on schooling, health and wellbeing.
- Previous surveys rely on direct questions on distance to water sources but may be inaccurate as distances are hard to gauge.
- This study employs a combination of qualitative and quantitative measures to establish distance and time spent in collecting water.
- Objective to prepare a tool to prioritize water delivery to ease burden on children.
- Four rural communities *with no piped water*, using natural water sources and with a high number of children collecting water were selected.
- Ngolotshe and Sunduza in KZN and Thoto and Malokela in Limpopo were selected as research sites and a total of 1,052 children, ages 5-17 participated in household survey.

Methodology

- Questionnaire included all domestic chores and wide range of questions relating to education, health and wellbeing;
- Qualitative methods included participatory observation, use of local fieldworkers, focus groups, key informants;
- Unemployed matriculant youth from that community engaged;
- Trained to undertake close measurement of volumes, times and distances.



Digging a pit to access water

“Collecting water is the toughest of household chores, takes most of our time and is very tiring.”

- Survey of Activities of Young People, 1999:
- 4,3 million of the 13,4m children (32.0% of the total) are involved for an hour or longer a week;
- Of these 80.2% live in ‘other rural’ areas;
- Carrying 25 kg is very physically demanding: children also use wheelbarrows or roll containers.

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Involvement in collecting water

- 847 children of the 1052 total (81%) are involved in carrying water.
- Water is collected before and after school hours.
- Most use 25 litre but 15, 20, and 30 litre containers are also used.
- Containers are transported home on head, by rolling or on wheelbarrows.
- Children appear to be carrying more water than adult women.



Time and distance measured



- Maximum distances were established during transect walk.
- Average step of each child estimated by walking a measured 10m.
- Shorter children made many strides, taller fewer.
- Pedometer sensitively recorded steps and time taken for each trip.
- Distances calculated from the readings.

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The long walk

Mean distances walked to and from the water source per trip

Area	Mean, metres
Malokela	3,726
Ngolotshe	1,932
Thoto	1,210
Sunduza	1,018
Mean of all areas	1,854

- Distances ranged between 1018 – 3726 meters per trip.
- Malokela was flat with greater distances, but Sunduza had a much steeper gradient.
- Time per trip accounts for distance walked, rests, queuing, digging and scooping.
- Longest distances >120min per trip.

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Water: the dominant activity

All chores

Water	15hrs: 58m
Firewood	3hrs: 37m
Housekeeping	1hrs: 56m
Total Time	19hrs: 31m



- 16 hours collecting water extraordinary; showing more intensive engagement than in the SAYP
- Children in remote rural areas spend more than twice as much time in collecting water as in SAYP

Time taken in domestic activities

Time bands	Firewood collecting	Housekeeping	Water collecting
0 - 7hrs:59m	684	728	259
8 - 13hrs:59m	21	1	172
14 - 20hrs:59m	0	0	192
21- 27hrs:59m	5	0	114
28hrs and more	0	0	110
Total	710	729	847

- Water collecting by far the most important activity – greater participation and takes considerably more hours.
- Few children involved >8 hours in either collecting firewood or in housekeeping but most children are involved for more than 8 hours in collecting water.

Impact on schooling



- “Sometimes you are so late that you find yourself coming to school without washing. We girls are not comfortable at all coming to school without washing”.
- Missing classes, late, tired, poor morale mentioned.
- But those undertaking more than a trip/day most likely to miss school and experience other problems.
- Also more age *inappropriate* to grade i.e. older than average.

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Impact on health and wellbeing

Change in health

Trips/day	Got worse
Once a day	18%
More than once	82%



- Evidence of a proportion of children feeling their health is suffering;
- Associated with unhappiness in undertaking the task.

Vulnerable health group

- A number of negative impacts are associated.
- Very large majorities state
 - collecting water is very tiring
 - sore neck or back, and
 - health is worsening.
- Comes largely (78%) from larger households.
- More than half (57%) have sought medical attention for ailments ‘from the beginning of the year’
- 75% reported fatigue.

Conclusions

- Water quality unsafe and volume of consumption lower than minimum of 25 litres per person per day;
- Very long time in all chores, 19hr 30m weekly;
- Majority attending school, minority report they are significantly affected in quality of schooling and health;
- Schooling: more often missing classes, low morale and not age appropriate;
- Health: among those who assess their health as getting 'worse' are many who are intensely involved;
- Related symptoms of fatigue, sore neck; regard water collecting as leading to worsening health;
- Solution in prioritising water delivery to improve access to safe water for children and communities.

The quality of water in a rural Limpopo village



Girls carrying this water
to their homes

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