



RESEARCH BRIEF

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Natural resource collection contributes to child illiteracy in Ethiopia

BY ABEBE D. BEYENE, ALEMU MEKONNEN AND ZENEBE GEBREEGZIABHER
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This study looks into the effect of resource collection (fuelwood collection and fetching water) on child education using data collected from rural Ethiopia. We find that, in general, natural resource scarcity contributes to child illiteracy by increasing the work burden on children in rural Ethiopia. In particular, children's participation in fetching water is found to be one of the most important factors reducing children's ability to read and write. There is greater child literacy when household heads have more education and when the family lives near a school. We also find that number of dependents, the presence of children under five in the household (both male and female) and child characteristics such as being a male child reduce the probability of child literacy. On the other hand, presence of children ages 6 to 10 and 15 to 17 in the household and the number of dependents in the household contribute to decreased child literacy.

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What is the relationship between child education and collection of different types of natural resources in Ethiopia? Like many other developing countries in general and sub-Saharan Africa in particular, children in Ethiopia do paid and unpaid work, which results in negative impacts on their health and education. Several studies have examined factors affecting child enrollment in school. However, working children may remain enrolled in school but not attend regularly. Therefore, this paper attempts to address the effect of natural resource collection work (fuel and water collection) on children's literacy as measured by their reading and writing ability in rural Ethiopia. The study uses data collected four times over the period 2000-2007 from the Amhara region of Ethiopia. Around 53 per cent of the children in the sample are boys while the rest are girls.

We found that close to 60% of the children in the sample can read or can both read and write. This suggests that the other 40% are not attending school for various reasons. Based on the survey results of the last round of data collection, this might be because these children are busy with household chores, farm work, or paid work. Other reasons included health problems in the family, unavailability of a school near their community, early marriage, or inability to afford the cost of education. Only 24% of the sample children participate in resource collection. However, this percentage could have been much higher had we included other activities of children such as herding or keeping animals. On average, a child spends 7.37 hours per week fetching water and 4.09 hours collecting fire wood. This includes both travel time and collection time.

In this study, we find that fetching water is a more serious concern in the study area and negatively affects child education. Household characteristics such as education of household head and household wealth (indicated by having a corrugated roof) also have a positive effect on children's literacy. We also find that number of dependents, the presence of children under five in the household (both male and female) and child characteristics such as being a male child reduce the probability of child literacy. Proximity to school also has a positive effect on child literacy. The probability of child literacy is lower at the lower age level, becomes higher somewhere in the middle (11-14) and then declines for those aged 15 to 17 years.

Conclusions and Implications

Natural resource collection in general has a negative effect on children's reading and writing ability. However, the effect may vary depending on the nature of the natural resource. Similar studies in the future with detailed data on child activities can help identify the most important activity that hinders child education. This information would allow development agencies to reallocate their limited resources to those sectors which affect children's education the most. For example, giving priority to increasing the availability of water in the study areas will enhance child education. Literate heads, availability of school near the child's residence, and reducing the work burdens of children at home would likely enhance child literacy. In addition, our finding of lower literacy for children ages 6 to 10, as well as children ages 15 to 17, suggests that policy interventions could focus on children in the top and bottom age categories.

Key Points

- Children's participation in fetching water is one of the most important factors that reduce children's ability to read and write.
- Literacy is lower for ages 6-10, higher in the middle (11-14) and declines for ages 15 to 17. This suggests that policy interventions could focus on children in the top and bottom age categories.
- School proximity is an important determinant of child literacy.
- Education policy should consider the contribution of educating household heads to increased likelihood of child literacy.

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ABOUT THIS BRIEF

This brief is based on EfD Discussion Paper 14-18 (2014): "Natural Resource Collection and Children's Literacy: Empirical Evidence from Panel Data in Rural Ethiopia," by Abebe D. Beyene, Alemu Mekonnen, and Zenebe Gebreegiabher. The Discussion Research Brief (DRB) series is associated with the EfD Discussion Paper series.

FURTHER READING

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CONTACT

Abebe D. Beyene (email) abebed2002@yahoo.co.uk (tel) +251 11 552 3564

Alemu Mekonnen (email) alemu_m2004@yahoo.com, (tel) +251 552 3564



EfD Center in Ethiopia
Environmental Economics Policy Forum for Ethiopia (EEPFE)
Ethiopian Development Research Institute (EDRI)
Blue Building, Near National Stadium, Office Numbers 401-409, Fourth Floor
P.O. Box 2479, Addis Ababa, Ethiopia
ethiopia@efdinitiative.org
www.efdnitiative.org/centers/ethiopia
eepfe-edir@ethionet.eth,
Phone 251 11 552 3564 /550-6066. Fax 251 11 550-5588,



Environment for Development initiative
Environmental Economics Unit, University of Gothenburg
PO Box 640, SE 405 30 Gothenburg, Sweden
info@efdinitiative.org
www.efdnitiative.org
Phone: +46-31-786 2595. Fax +46-31-786 10 43