Key messages

- Rural children, particularly girls, are at risk of being withdrawn from school when weather shocks occur.
- School enrolment among older children increases by 8.6 percentage points when school feeding programmes are available in regions affected by low rainfall.
- In communities frequently exposed to low rainfall conditions, access to school feeding helps to sustain school enrolment, particularly for older girls.

Background

Emerging evidence suggests that a worrying number of rural children, particularly older girls in low-income countries, are withdrawn from school when weather-related disasters occur. Identifying actions that mitigate the adverse effects of weather shocks on school enrolment is, therefore, critical for sustaining equitable human capital formation in the context of climate change.

Adverse weather affects school enrolment in rural areas along multiple dimensions. Directly, these events undermine households’ income and food security by reducing crop, livestock, and ecosystem productivity. Indirectly, the adverse impacts of these events ripple through rural economies, undermining income opportunities in the rural non-farm economy and pushing up food prices. Reductions in income and consumption due to weather events often force rural households to liquidate assets, reduce expenditures, and search for alternative income opportunities in order to cope. As the frequency of exposure to these events increases, the capacity of households to cope is diminished, leading to greater reliance on coping strategies that may undermine future welfare and resilience.

Investments in school enrolment often suffer as a result of exposure to adverse weather conditions. Of particular concern are the effects on the school enrolment of older girls, whose educational attainment is often...
valued less than boys, and whose potential household labour contribution is high. This raises major concerns that climate change, and associated increases in extreme weather events, will deepen educational disparities between rural and urban spaces, and between boys and girls. There is, therefore, an urgent need to identify and assess policy instruments that can attenuate the adverse impacts of extreme weather on schooling in rural areas.

How school feeding programmes support school enrolment

A substantial body of evidence suggests that school feeding programmes (SFPs) have positive effects on both school participation and learning. These impacts come through two channels. The first is through the direct income effects of the food transfer. By providing food to students, as well as in some cases take-home rations, SFPs reduce household food expenditure costs and the short-term opportunity costs of sending children to school. The second is through the cognitive impact of school feeding on children. By improving child nutritional status and available energy, SFPs generate benefits in terms of concentration and cognition, leading to better overall performance in school. These benefits also contribute to increased enrolment and can lead to improvements in the ability of children to pass grade-level exams.

The context: school feeding programmes and data in Malawi

The report summarized in this brief draws on evidence from four waves of household-level panel data from the Malawi Integrated Household Surveys initiative, covering the period 2010 to 2019. These data include: individual level information to track school enrolment of all children in the sample over time; community level information on SFPs, and; geographic information that enables an identification of weather shocks experienced by the surveyed households over the last 30 years. These data allow for an analysis of the impacts of access to SFP on the school enrolment of children, disaggregated by age cohort and the sex of the child. Low rainfall conditions are the most commonly observed weather shocks during the study period, and are therefore the focus of the analysis.

In Malawi, SFPs are coordinated by the Government of Malawi, with support from international partners. SFPs focus on primary schools in rural districts. As of 2018, SFPs covered roughly 30 percent of all primary schools in the country. Selection of beneficiary schools is based first on various district-level criteria, such as poverty rates, prevalence on undernutrition, and gendered disparities in education. Within districts, schools are selected based on local characteristics, such as size, accessibility, water availability, storage and sanitation facilities, security, and willingness of community members to help implement the programme.
Access to SFPs support school enrolment when rainfall shocks occur
In Malawi, SFPs are found to significantly improve school enrolment in communities exposed to low rainfall conditions, and to sustain enrolment when these events occur more frequently. Figure 1 shows the estimated impacts of SFPs, disaggregated by age cohorts (1=youngest and 4=oldest) and the sex of the child. It shows that when a community is affected by low rainfall, access to SFPs increases school in enrolment of both boys and girls in the oldest age cohort group by 8.6 percentage points. When focusing on communities that were more frequently exposed to low rainfall in the three years prior to the survey years, the results show that again the benefits of the SFP are concentrated in the oldest cohort, and particularly among girls in that group whose enrolment increases by 10.9 percentage points relative to communities without SFPs.

Positive affect of school feeding on school enrolment when rains fail

Similarly, for communities exposed more frequently to low rainfall conditions over the previous 10 years, the benefits are mostly concentrated in the older age cohorts, and again particularly for girls. In addition, the positive effects of SFP are found for boys in the youngest age cohort.

Policy options to for enhancing benefits of sfps in the context of climate change
Sustaining school enrolment in the context of a climate change is essential for fostering human and economic development in rural spaces. The positive impacts of SFPs in supporting enrolment when weather conditions disrupt agricultural production can be enhanced in the following ways:

Leverage take home rations: The positive impacts observed in Malawi are driven partially by the widespread inclusion of take-home rations in the country’s SFPs. These rations enhance the effects of the programme on household food budgets, thereby supporting families to keep children in school when income shocks occur.

Link adoption of climate adaptive agriculture to local SFP procurement: Home grown school feeding programmes can be used to incentive and promote the adoption of crop and agricultural practices that are more resilient in the face of weather shocks. These practices can help reduce income losses when shocks occur, thereby reducing economic pressures to withdraw children from school.

Using seasonal forecasting to target SFPs: Down-scaled seasonal forecast information can be used to identify regions that are likely to face adverse weather conditions in a given year and thus target school feeding to areas where needs are likely to be high.
This policy brief is based on the paper on *Sustaining school enrolment when rains fail: A gender disaggregated analysis of the impacts of school feeding programmes on school enrolment in the context of dry shocks in Malawi*, by Staffieri, I., Sitko, N., Maluccio, J.

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