



Barriers to Prosperity



The DMDO is a local social enterprise in southern Tanzania dedicated to serving the rural communities by removing barriers to prosperity.

The purpose of this Insight Note is to provide an overview of the lived experience of the people the DMDO serves.

Barriers to Prosperity

Early church leaders and Tanzania’s first president Julius Nyerere have identified that undernourishment, disease, and illiteracy are three key barriers to prosperity. This Insight Note will explore the evidence for this and how this DMDO’s targeted approach, through increased access to clean water and sanitation and hygiene facilities, helps to reduce these barriers and facilitate prosperity for people in the target areas.

DMDO considers that individuals are prosperous when they have the opportunity to improve their economic, social, and political well-being through the exercise of their own free will. Similarly, a community is prosperous when there are shared values of integrity, tolerance, and fellowship.



Undernourishment

Nearly half of under-five child deaths globally are attributed to undernourishment^{1,2}. Evidence from the Food and Agriculture Organization of the United Nations estimated that nearly 821 million people in 2017 were affected by chronic undernourishment³. Most of the people affected are in low- and middle-income countries, with women, infants, children, and adolescents at particular risk of malnutrition⁴. In particular, adequate nutrition early in life—especially in the first 1000 days from conception to a child’s second birthday, a period of rapid growth and high nutritional requirements⁵—are critical for ensuring that children are able to achieve their full potential later in life.

¹ WHO. (2020). [Children: improving survival and well-being](#)

² Caulfield et al. (2004). [Undernutrition as an underlying cause of child deaths associated with diarrhea, pneumonia, malaria, and measles.](#)

³ Cardenas et al. (2019). [Is nutritional care a human right?](#)

⁴ WHO. (2021). [Malnutrition Fact Sheet.](#)

⁵ Martorell. (2017). [Improved nutrition in the first 1000 days and adult human capital and health.](#)

The impacts of undernourishment at an individual level are well-established in medicine: inadequacy in nutrient intake can cause stunting (low height-for-age), wasting (low weight-for-height), and irreversible gaps in development of the brain and immune systems. Many developmental processes occur only during certain stages of life and cannot be redone later in life^{6,7}, so stunting and wasting during critical periods of development can have severe, long-term consequences for individuals⁸. But according to the 2015 Global Nutrition Report, the impacts of malnutrition go well beyond the individual level; some estimate the overall gross domestic product (GDP) losses from stunting at between four to 11 percent⁹. Worldwide, malnutrition is estimated to cost USD 3.5 trillion annually¹⁰. The short- and long-term impacts of undernourishment robs families, communities, and countries of human capital, the foundation of economic development. For all of these reasons, the right to “an adequate standard of living, including access to food” and nutritional care is recognized as a human right under the International Covenant on Economic, Social, and Cultural Rights (CESCR), which came into effect in 1976 and of which Tanzania is also a party.

Undernourishment in the Target Area

In Tanzania, poverty and food insecurity are key contributors to undernourishment. Individuals living in poverty are unable to meet basic needs including food, shelter, medication, and education. Although the national poverty rate is slowly decreasing, many people in rural areas, including in the target project area, remain impoverished. The World Bank’s report on poverty indicates that there was only a 1.8% decline in poverty between 2011 and 2018, which meant that the population rate increased faster than the poverty reduction rate in Tanzania¹¹. While Tanzania has successfully reduced death rates in younger age groups and surpassed the Millennium Development Goal related to child mortality, stunting among children under five is persistently high, affecting over three million children in Tanzania with large regional disparities, ranging from 15% in Dar es Salaam to 56% in Rukwa region in western Tanzania.

85% of the rural population in the Target Area are small-hold farmers¹². Many lack education on agricultural production and post-production practices. Input factors, primarily seeds and livestock, are either not available or beyond households’ financial reach. As such, production is tied to the seasons. Crop harvest, and therefore adequate food, is dependent on the rains and resistance to pests. Rural populations are therefore precariously exposed to factors beyond their control for their nutritional needs. This problem is compounded with large families, as 4 to 8 children in a household is common, adding mouths to feed. Food insecurity and low income to households sometimes forces household members further into poverty, unable to obtain the necessary resources to survive.

⁶ Victoria et al. (2008). [Maternal and child undernutrition: consequences for adult and human capital.](#)

⁷ For example, during pregnancy, an infant’s brain will develop more than 100 billion nerve cells ([Dekaban & Sadowsky, 1978](#)) and by 24 months of age the brain has reached 80% of its adult size. Lack of adequate nutrients during the first 1000 days can lead to irreversible gaps in brain development.

⁸ The World Bank. (2016). [Malnutrition is Widespread Enough to Threaten Economic Returns in Some ECA Countries.](#)

⁹ Horton & Steckel. (2013). [Malnutrition: Global Economic Losses Attributable to Malnutrition 1900-2000 and Projections to 2050.](#)

¹⁰ Beaudreault. (2019). [Nutrition Policy: The Untapped Path to Global Health, Economic Growth, and Human Security.](#)

¹¹ Ministry of Finance and Planning, United Republic of Tanzania. (2020). [Tanzania Mainland Household Budget Survey 2017/18.](#)

¹² Planning Commission, United Republic of Tanzania. (1999). [Tanzania Development Vision 2025.](#)

Poor nutrition also increases people's vulnerability to health problems and deprioritizes education. Literature shows that diarrheal and infectious diseases are associated with reduced food intake, impaired absorption of nutrients, endogenous nutrient loss, and anemia¹³. For this reason, diarrhea is a leading cause of malnutrition in children under five years old¹⁴. Chronic exposure to pathogens and recurrent infections or prolonged states of inflammation may also result in structural damages in the digestive system, which can affect nutrient absorption long-term¹⁵. At the same time, undernourishment increases children's susceptibility to disease. When children are undernourished, their resistance to infection is lowered and they are also more likely to die from diarrheal disease and other infections.

Disease

As human beings, our health is our most basic and essential asset. Ill health and disease can prevent individuals from attending to family responsibilities, going to school or work, or participating fully in their communities. For these reasons, health is indispensable for the exercise of all other fundamental human rights and is a prerequisite to individual prosperity. Globally, diarrheal disease, which is both preventable and treatable, is responsible for around 525,000 deaths of under-five children every year, making it the second leading cause of death for children under five years old¹⁶. The highest prevalence of childhood deaths from diarrhea is in Sub-Saharan Africa, where 50% of all diarrhea-related deaths occur¹⁷.

Disease in the Target Area

In Tanzania, great advancements have been made to reduce the disease burden on its populations, and between 1980-2015 diarrhea-specific deaths among under-five children in Tanzania declined from 30,521 in 1980 to 8,000 in 2015¹⁸. However, there remains significant variation in prevalence of childhood diarrhea, with Lindi at 14%, Mtwara at 17.8%, and Ruvuma at 12.1% compared with the lowest national prevalence in Tabora at 5.1%¹⁹. At the same time, about 85% of the government budget for healthcare spending goes to urban hospitals despite only 10% of the population living in urban areas; this means that 90% of the population living in rural areas must rely on the remaining 15% of the country's healthcare funding²⁰. This imbalanced distribution of resources means that many people living in rural areas have to pay out of pocket to receive what is often inadequate treatment for common communicable and preventable disease (with tuberculosis, diarrheal diseases, HIV, cholera, typhoid, malaria, and pneumonia as the most important public health problems in the project area). These recurrent medical bills put further financial pressure on low-income households.

¹³ Katona & Katona-Apte. (2008). [Interaction between Nutrition and Infection.](#)

¹⁴ WHO. (2017). [Diarrheal Disease.](#)

¹⁵ Gilmartin & Petri. (2015). [Exploring the role of environmental enteropathy in malnutrition, infant development, and oral vaccine response.](#)

¹⁶ WHO. (2017). [Diarrheal Disease.](#)

¹⁷ Walker et al. (2013). [Global Burden of Childhood Pneumonia and Diarrhoea.](#)

¹⁸ Masanja et al. (2019). [Factors associated with the decline in under five diarrhea mortality in Tanzania from 1980-2015.](#)

¹⁹ Edwin & Azage. (2019). [Geographical Variations and Factors Associated with Childhood Diarrhea in Tanzania: A National Population Based Survey 2015-16.](#)

²⁰ Ministry of Finance and Planning, United Republic of Tanzania. (2021). [National Five Year Development Plan 2021/22 – 2025/26.](#)

It is well-known in literature that poverty is a determinant of health. In fact, the CESCR general comment number 14 (article 14) emphasizes that “the right to health embraces a wide range of socioeconomic factors that promote conditions in which people can lead a healthy life and extends to the underlying determinants of health.” In other words, poverty often leads to disease. But disease also increases financial strain and poverty. The death or disability of a household income earner due to disease and high medical costs related to disease treatment contribute to economic hardship. Moreover, current literature confirms that the burden of diseases leads to lost productivity. An analysis conducted in 2017 using data from 21 countries demonstrated that reduction in burden of parasitic and infectious disease, together with improved nutrition, from 1800-2011 have resulted in markedly improved physiological capital and cognitive skills, and, consequently, in productivity advances²¹. This evidence suggests that disease acts as a barrier to economic growth, and, when removed, fosters individual and community prosperity. From the same study, literacy and education were also highlighted as important factors for earning potential.

Illiteracy

Illiteracy has well-documented economic and social costs. There are more than 770 million people worldwide who cannot read or write; it is estimated that illiteracy costs the global economy USD 1.19 trillion annually due to lost earnings, reduced productivity, and missed wealth-creation opportunities²². For these reasons, education has been a crucial part of global development efforts since the 1990 World Conference on Education for All, with many governments emphasizing education as a key strategy in national development plans²³. Subsequently, many countries experienced a massive growth in the enrollment of formal education over the second half of the 20th century. In Sub-Saharan Africa, gross enrollment rates in primary schooling doubled from 40% in 1960 to nearly 80% in 1995, and enrollment in secondary school increased from 3.4% to 27% in that same period of time. An analysis conducted in 2009 using data from 40 African countries demonstrated how this increase in education enrollment has since translated to economic growth of these same nations from 1980-2000²⁴. There is similarly strong empirical support for the enhancing effect of education on micro-level economics for individuals, especially through the acquisition of cognitive skills, productivity, and earnings²⁵. Beyond the economic rationale, illiteracy also holds social importance as both a result of and contributor to generational poverty and social inequity.

Illiteracy influences the social vulnerability of individuals and can exacerbate existing inequities due to gender, age, ethnicity, and geographic location. Children with healthy learning environments are better protected from exploitation. Girls, especially, are safer from abuse and early marriage. Formal education also leads to greater access and openness to prenatal care (including nutritional care) during pregnancy for women²⁶. On the flip side, multiple studies show that literacy improves self-esteem (especially for women), personal autonomy, and critical thinking and creativity^{27,28,29}. This in turn leads to increased political participation, social integration, and social cohesion³⁰.

²¹ Madsen. (2017). [Health-lead Growth Since 1800.](#)

²² Lal. (2015). [The Economic and Social Cost of Illiteracy: An Overview.](#)

²³ Tarabini. (2010). [Education and poerty in the global development agenda: Emergence, evolution, and consolidation.](#)

²⁴ Seetanah. (2009). [The Economic Importance of Education: Evidence from Africa Using Dynamic Panel Data Analysis.](#)

²⁵ The World Bank. (2004). [Rationale for Public Investments in Primary Education in Developing Countries.](#)

²⁶ Kazeem et al. (2010). [School Attendance in Nigeria: Understanding the Impact and Intersection of Gender, Urban-Rural Residence, and Socioeconomic Status.](#)

²⁷ Bingman. (2000). [“I’ve Come a Long Way.” Learner-identified Outcomes of Participation in Literacy Programs.](#)

²⁸ Egbo. (2000). [Gender, Literacy, and Life-Chances in Sub-Saharan Africa.](#)

²⁹ Lauglo. (2001). [Engaging with Adults: The Case for Increased Support to Adult Basic Education in Sub-Saharan Africa.](#)

³⁰ UNESCO. (2005). [The Political Benefits of Adult Literacy.](#)

Illiteracy in the Target Area

As of 2020, Tanzania's literacy rate was 70.6%, which is lower than the 84% recorded in the 1980s³¹. Tanzania's five-year development plan, a national guideline for collective action towards poverty alleviation, calls out inadequate education in rural communities as one of the key contributors to poverty in the country. Many families view education as a luxury and therefore do not prioritize it for their children. Low household income levels mean that parents cannot cover school requirements for their children. Distance to schools (average of 5 to 10 kms from their homes) and poor transportation and infrastructure mean day-secondary schools are hours away, especially in rural areas. Even if a student is able to attend school, the quality of the education might be poor due to lack of teaching materials and supplies; for girls, harassment, pregnancy and menstruation are just a few reasons why women can be excluded from education in rural areas.

³¹ Ministry of Finance and Planning, United Republic of Tanzania. (2021). [National Five Year Development Plan 2021/22 – 2025/26](#).