

## Using food diaries to inform a fortification strategy

After several years of working with Tunamkumbuka and Ikondo Schools in Kagera Region, Tanzania Development Trust (TDT) has noticed that poor nutrition holds back the educational prospects of students. At the same time, several NGOs and companies in the area are working on food fortification. For this reason, TDT decided to commission a piece of research about the potential for fortification and available options.

After discussing with Janet at TDT, and Alpha and Robert in Kagera, I proposed that “food diaries” would be a useful tool to guide a fortification project in the two schools. The scientific consensus for fortification, and how to do it, is fairly clear. But understanding of what students were actually eating was limited.

Across the two schools 25 young men and women, both living in school hostels and at home, kept a note of everything they ate for a week. We found that 40% of students had no breakfast for half the school week or more. For lunch and dinner 28% ate only ugali (made from maize flour) and beans all week, and a further 10% had ugali and beans for all but two meals. There was considerable variation: 60% ate some form of animal protein, but this varied between one and ten times per week.

The food diaries were useful for showing what students eat and don't (suggesting most get regular protein, for example) *and* what fortified foods might be the best ones to improve nutrition for as many as possible. With this, I was able to suggest that collaboration with maize fortification projects in the area looks like a viable way to benefit a high proportion of students. Meanwhile the addition of (green) vegetables would be welcome! It seems both schools may have the land required to grow a reasonable amount. TDT management can now pursue these opportunities, within organizational budgets and priorities.

I have also made a series of recommendations about how to monitor the effect of work in this area, guided by two principles: unintrusive and light-touch questions, and user-centered approaches that put the students at the heart of deciding if interventions work well or not.

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