



# Millers' Pride – Liske Bora project

## Lessons learned on small and medium-scale maize flour fortification in Tanzania

### About the project

From 2013 to 2016, DSM and World Vision formed a partnership to assist the Tanzanian government in its fight against malnutrition. The Millers' Pride – Liske Bora project aimed to engage approximately 300 small and medium-scale maize millers in the Tandale and Manzese areas of Dar es Salaam, the largest city in Tanzania.

The initiative supported these millers in fortifying maize flour with essential vitamins and minerals, to ultimately improve the nutritional status of thousands of Tanzanians. Upon completion, the Dutch Royal Tropical Institute (KIT) was asked to evaluate the project and extract the key learnings that could be used to offer support to other parties engaging in small and medium-scale mill fortification.

### Why Tanzania?

Malnutrition and micronutrient deficiencies are serious problems among the Tanzanian population. The Government of Tanzania has embarked on various efforts in response, including making maize flour fortification mandatory for large-scale maize processors since 2011.

However, 95% of maize flour in the country is produced by small and medium-scale hammer miller operators who are exempt from this legislation. Consequently, maize flour has limited market penetration. In fact, estimates suggest that just 0.02% of all maize flour on the Tanzanian market is fortified.

The fortification of flour is a well-established, trusted method of addressing micronutrient deficiencies on a large scale and in a cost-effective manner in populations with a high consumption of

flour. Gaining a better understanding of the barriers faced by the millers during the Millers' Pride – Liske Bora project will help to ensure the successful implementation of flour fortification initiatives in years to come.



## Looking to the future

In the Millers' Pride – Lishe Bora project, the small and medium-scale millers faced a number of recurring challenges. By working together to identify how such issues can be addressed, small and medium-scale millers in Tanzania and other countries will be better supported to achieve greater implementation and successfully reduce micronutrient deficiencies in the future.

Challenge	Current climate	The future
Cost	<p><b>Nobody is ready to cover the costs of fortification</b></p> <p>When fortifying maize flour, the costs incurred by millers include the purchase of new equipment, changes to and certification of premises, staff training and premix procurement.</p> <p>Many of the consumers who stand to benefit from fortified flour cannot afford to pay extra for the product. Smaller millers thus recognise that there is little prospect to generate a substantial return on investment and therefore do not make the necessary investment.</p>	<p><b>Build a strong business model with support and incentives to invest in fortification</b></p> <p>Maize flour fortification initiatives should take a value chain approach, which considers the specific interests of each actor, the barriers they face and the enabling factors that can help and incentivise them to drive forward in a positive way. This should also establish who would be expected to bear the costs, including the potential for initial financial investment to come from an external party, such as donors, governments and non-governmental organisations.</p>
Certification and regulations	<p><b>Unregulated and non-standardised products remain common</b></p> <p>Typically, smaller millers are characterised by limited technology, capacity, skills and financial resources. Very few have certified premises or products, which has a major impact on the feasibility of any safe maize flour fortification programme.</p> <p>Only small numbers of millers currently adhere to regulations, indicating that additional legislation would not be effective in changing behaviour.</p>	<p><b>Encourage compliance by addressing underlying challenges</b></p> <p>Better support should be made available to millers in gaining certification, through training and financial assistance from across the value chain.</p>
Consumer awareness and attitudes	<p><b>A vicious circle: no awareness – no demand – no production</b></p> <p>To improve consumer uptake, there must be greater awareness of both fortification and the health risks associated with micronutrient deficiencies. A reasonable availability of fortified flour is required to tackle the situation, but millers are wary of investing in and producing volumes of product without certainty of demand.</p>	<p><b>Create awareness hand-in-hand with increasing product availability</b></p> <p>Educational campaigns need to take place in parallel with production activities. Both governments and non-governmental organisations can help in supporting and leading awareness programmes which should be guided by more empirical data on consumer behaviour, price responsiveness and the most effective marketing methods.</p>

## Talk to us

To receive the full-length Millers' Pride – Lishe Bora project report and discover how DSM's experience, insights and expertise can help ensure the success of your future fortification programmes, contact us: [nutrition.improvement@dsm.com](mailto:nutrition.improvement@dsm.com).

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