POLICY BRIEF

Pathways to enhance millet production and consumption in Bhutan

What's the issue?

Communities across the world have consumed foods from millet – as a traditional food and source of nutrition – for generations. However, with changes in lifestyle and dietary habits, millet has lost its prominence, making many countries dependent on import-driven cereals like rice, wheat, and maize. Despite the potential to address food and nutritional security, millet production has declined. Millet is a climate-resilient crop that have been identified as an alternative to potential cereals in the hilly regions of the Hindu Kush Himalayan region in addressing food and nutrition security, especially under the current climate change scenarios. The UN Food and Agriculture Organization (FAO) has designated the year 2023 as the International Year of Millets.

Bhutan has about 64.59% of dry land and 30.18% of wetlands, out of 2.93% of cultivated agricultural land (National Land Commission, 2023). Rice is a staple crop in Bhutan, grown in the wetlands. The production meets only 35% of domestic demand, while the rest is imported. Rice production demands a high engagement of labour, water requirements, and fertilisers. To reduce the dependence on imports, millet serves as a potential alternative cereal to supplement the demand for rice. However, the current production of millet is insignificant, amounting to approximately 0.10% of the total cereal production. Millet is a climate-resilient crop that requires low input and suitable growing in sloppy and dry lands.

RECOMMENDATIONS SUMMARY

- Increase the production area of millet cultivation in Bhutan through farm mechanisation
- Encourage farmers to cultivate millet through buy-back schemes
- Promote and diversify millet cuisines in school meals and beyond

Why is this important?

The Department of Agriculture under the Royal Government of Bhutan's Ministry of Agriculture and Livestock promotes climate-resilient crops to overcome several challenges posed by the impacts of climate variability and to achieve food and nutrition security by adopting diversified crops and enhancing a shift in food habits among Bhutanese cuisine. The limited wetlands for paddy cultivation and other production challenges will hinder the achievement of 100% rice self-sufficiency.

Malnutrition among children under five years of age is prevalent, with micronutrient deficiency and accelerated growth in overweight and obesity (European Commission, 2023). Millet, as a nutrient-

dense food, has the potential to address the issue of undernourished and overnourished populations. Millets, especially finger millets, can be grown right after maize harvest with very little water and other inputs. The nutritional benefits from millet can eventually reduce the rising non-communicable diseases in Bhutan. In addition, millets have gained significance among the traditional cereals through the initiative spearheaded by the Government of India and amplified by the Food and Agriculture Organization, such as the International Year of Millets 2023.

What should policy makers do?

There is no single approach to promoting millets and a multi-pronged strategy is recognized as the best pathway forward. The following recommendations, if adopted, will strengthen the position of millets within local, regional, and national markets, while addressing the multi-dimensional benefits of food and nutrition security adapted to the cropping system of dry land farming without much disturbance to the current commodities in Bhutan.

Therefore, the Department of Agriculture as the lead agency should support the promotion of the millet production programmes in fallow land through the use of small-scale farm mechanisation, support of farm inputs, promotion of millet cuisines, marketing, and buy-back schemes by the government during surplus production. A strong collaboration with relevant national and international agencies has to be considered.

Increase area under millet cultivation through farm mechanisation: To promote millet cultivation in dry and hilly areas, where it can thrive with minimal inputs and adapt to climate change, the government should provide incentives for farm inputs and mechanisation. This would enable farmers to use fallow land for millet production and overcome the challenges of drudgery and labour scarcity.

Moreover, the government should invest in post-harvest technologies and value chain services to improve the marketability of millets at the national level. By increasing millet production, the cereal diversity in the food basket would be enhanced, reducing vulnerability to crop failures and offering consumers more nutritious food options.

Encourage millet growers through buy-back schemes: One of the ways to promote millet cultivation among farmers is to offer them a guaranteed market for their produce. Millet is a nutritious and climate-resilient crop that can benefit both consumers and the environment. However, many farmers are reluctant to grow millet due to the lack of demand and low prices. Therefore, the government should implement a buy-back policy with minimum support price for millet, which would ensure that the farmers get a fair return for their efforts. This would also increase the availability and affordability of millet for the consumers, and encourage its consumption as part of a healthy diet.

Promote and diversify millet cuisines in school meals and beyond: To promote and diversify millet cuisines in school meals and beyond, several strategies can be adopted.

First, raising awareness among the young generation about the nutritional and environmental benefits of millet through various media platforms and influencers. Second, introducing millet product development in the curriculum of the relevant programmes in universities (e.g. College of Natural Resources, Rural Development Training Centre) and organising food competitions among chefs to encourage innovation and creativity in millet cuisines. Third, supporting the inclusion of millet cuisines in various institutional settings such as schools, monasteries, hospitals, homestays, cafeterias, and tourist outlets. Fourth, showcasing traditional millet cuisines as part of the heritage and diversity of Bhutan's tourism industry. Fifth, hosting an annual millet food festival among Hindu Kush Himalayan countries to foster collaboration and exchange of knowledge and practices on millet utilisation and development

Authors

This factsheet was prepared in 2023 by the HUC Thematic Working Group on Mountain Agriculture.

- B.B Rai, Senior Agriculture Production Officer, Agriculture Production Division, Department of Agriculture, Ministry of Agriculture and Livestock, Thimphu, Bhutan
- Ugyen Yangchen, Lecturer, College of Natural Resources, Royal University of Bhutan
- Tshering Tobgay, Deputy Chief Agriculture Officer, Agriculture Research and Innovation Division, Department of Agriculture, Ministry of Agriculture and Livestock, Thimphu, Bhutan

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International Centre for Integrated Mountain Development
GPO Box 3226, Kathmandu, Nepal
T +977 1 5275222 E info@icimod.org **www.icimod.org**