Foresight analysis of the diet transformation in Bangladesh: A scenario simulation study for the period 2022-2050

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Rationale

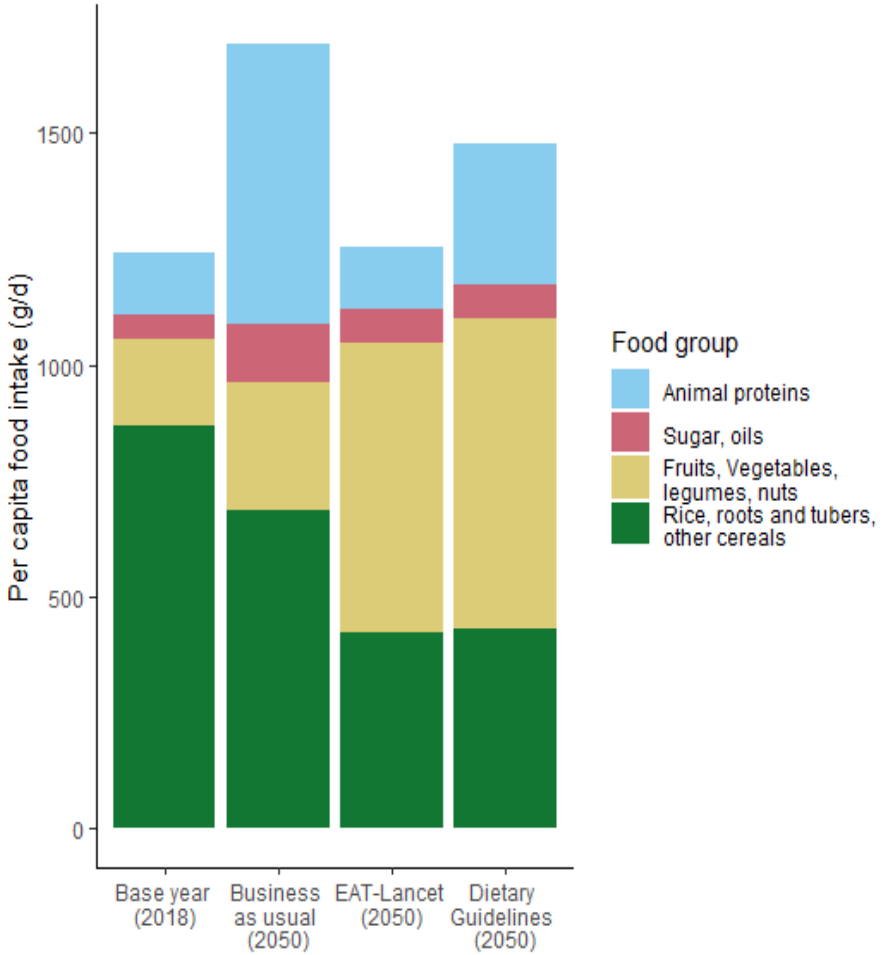
The study explores different diet scenarios based on the two types of dietary guidelines and the business-as-usual scenarios using foresight analysis and simulation methods. Bangladesh has made progress in reducing malnutrition due to economic growth and poverty reduction, but still faces challenges in dietary diversity, micronutrient intake and NCDs.

Methods

The study used mixed methods to understand diet transition from 2022 to 2050 using quantitative and qualitative assessment. For quantitative assessment, the dashboard developed using the MAGNET (Modular Applied GeNeral Equilibrium Tool) a general equilibrium model was used.

Results

- The future diet pattern of 2050 reveals a rise in animal products, sugar, and oil, with a high reliance on staple foods like rice, with the Business-as-usual diet.
- The FBDG and EAT-Lancet diets show increased intake of vegetables, fruits, legumes, and nuts, while BAU diet shows a decrease.
- The FBDG diet has less consumption of sugar and oil seeds but higher intake of animal protein and dairy than the EAT-Lancet diet
- FBDG shows higher relevance of policy implementation and practice.



Study implications

The Bangladesh FBDG diet combines plant-based protein with a lower staple diet, has positive health effects and a lower environmental footprint. Diversifying agriculture, investing in sustainable practices, and increasing consumer awareness need prioritization.