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Improving Household Food Security through Integrated Dairy Farming Approach: Implications for Food Policy in Bangladesh

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Abstract

The National Food Policy (NFP) provides strategic guidance for achieving food and nutrition security. Within this goal, child undernourishment, underweight and stunting indicators measure the progress toward NFP and ensuring nutrition security. Therefore, the objective of this research was to evaluate the effect of Integrated Dairy Farming Approach on the improvement of the nutritional status at household level. The modelling on integrated dairy farming approach was applied to assess the nutritional status of children under five. A pre-tested and pre-designed questionnaire was applied to the most important dairy region of the country. A total of 120 household were purposively selected consisting of the household with dairy and household without dairy. The data were collected using face-to interview from northern district of Sirajgonj. The data were analysed using WHO-Antrho software and STATA 12.0. A paired t-test was performed to compare the nutritional status of children under five between dairy and non-dairy household compared with WHO values. The overall weight and height of the children were significantly lower than the reference value proposed by WHO ($p < 0.05$). However, the children in dairy household have significantly higher weight (12.30 versus 11.00 kg) and height (85.24 versus 83.42 cm) ($p < 0.05$) but for head circumference the non-dairy children has higher head circumference than dairy children. The Body Mass Index (BMI) was found 16.92 for dairy group and 15.8 for non-dairy group which falls within the $^{-1}$ Z score (deviation from the median). The underweight (Height-for-age) was the serious problem (lower than cut-off which is -2 Z-score)) that corresponds to -2.6 and -3.1 Z-score for dairy and non-dairy, respectively which implies that children consuming milk is better than non-milk consuming children. The average stunting (Height-for-age) were found slightly upper than cut-off or risk (-1.3 Z-score for dairy and -1.9 Z score for non-dairy). The result of this study implies that the household with dairy farming provides better nutrition than household without dairy farming. For long-term food especially nutrition security policy of Bangladesh would need to focus on promotion of local dairy sector for increasing the access to milk for the children through integrated dairy farming approach.

Keywords: Dairy, food security, stunting, wasting and food policy

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