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"Filling gaps and removing traps for sustainable resource management"

Crop Diversification and Participation of Farm Households in Different Marketing Chains of Finger Millet and Maize Crops vis-à-vis Food Security Status in Rural-Urban Interface of Bengaluru

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Abstract

The linkage between agriculture and nutrition is complex and often debated in India's policy discourse. The enigma of being the fastest growing economy and yet the largest home of under- and mal-nourished population takes away the sheen from India's economic achievements. Diversification of agriculture in favour of competitive and high-value enterprises is considered an important strategy to augment farm income, generate employment, alleviate poverty and conserve soil and water resources. In the recent past, agricultural diversification occurred largely through crop substitution. Within the Indo-German research project 'The rural-urban interface of Bengaluru - a space of transition in agriculture, economics and society', sub project 'Food insecurity at different stages of urbanisation' funded by the Department of Biotechnology, Government of India, we examined crop diversity, use of marketing chains and food security status of farm households (HHs). Primary data was collected from 659 HHs situated along a south and 616 HHs located along a north transect across the rural urban interface of Bengaluru. Crop diversification was analysed using Herfindahl index (HI), with a HI close to zero representing complete crop diversification and a value close to one representing complete specialisation.

A larger area was cultivated along the south (212.58 ha) than along the north transect (178.28 ha). However, crop diversity was higher along the north (0.46) than the south transect (0.49), and highest specialization was found the rural-urban transition zone. Participation of HHs in marketing chains of finger millet and maize revealed that finger millet is mainly grown for family consumption rather than for market sale. Producers realized a higher millet price on farmers' markets than through other marketing channels, and food security status was also higher in HHs using this channel. In case of maize, HHs selling to the Agricultural Produce Marketing Committee realised higher prices than HHs selling on other markets. Overall, farm HHs along the south transect were more food secure than those on the north transect. The volume of marketed surplus was higher for maize than for the staple crop finger millet, but there is a larger scope for finger millet production in Karnataka as it is rainfed.

 $\textbf{Keywords:} \ \textbf{Crop diversification}, \ \textbf{finger millet}, \ \textbf{food security}, \ \textbf{Herfindahl index}, \ \textbf{maize}, \ \textbf{marketing channels}$

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