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"Competing pathways for equitable food systems transformation: Trade-offs and synergies"

Addressing agricultural labour issues is key to biodiversity-smart farming

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Abstract

Worldwide, biodiversity is declining faster than at any time in human history, with agriculture being considered one of the main causes. Hence, there is an urgent need for biodiversity-smart agricultural development strategies that reconcile agricultural production and biodiversity conservation. This is especially true in the Global South where population growth is rapid and much of the world's remaining biodiversity is located. While there has been substantial research on trade-offs between agricultural land use and biodiversity, limited attention has been paid to trade-offs between agricultural labour and biodiversity, especially in regions where agricultural development competes with biodiversity conservation. This is problematic because, next to land and capital, labour is a key factor of agricultural production, and strategies to increase labour productivity have far-reaching implications for the way agriculture is practised. Combining conceptual thoughts with empirical insights from case studies in Indonesia and Ethiopia, we argue that strategies to reconcile agricultural development and biodiversity conservation will have to pay more attention to agricultural labour dynamics. Farmers have a strong motivation to reduce the heavy toil associated with farming by adopting technologies that save labour but can negatively affect biodiversity such as agricultural mechanisation and pesticides. Labour constraints can also prevent farmers from adopting technologies that improve biodiversity but often increase labour burden. Without explicitly accounting for labour issues, conservation efforts can hardly be successful. Our empirical insights suggest that technological and institutional options to reconcile farmers' socio-economic goals and biodiversity conservation exist but that more needs to be done to implement such options at scale.

Keywords: Africa, Agricultural Development, biodiversity Conservation, Indonesia , Labour, Land-Sharing, Sustainability, Trade-Offs

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