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Transforming Subsistence Cropping in Asia

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Abstract: The Green Revolution has benefited many people in Asia, but not everyone. This paper examines how many farmers have increased their productivity with more intensive cropping systems of fruit, vegetables, and in some cases, flowers. Total area under these crops more than tripled between 1977 and 2003. Case studies to highlight the transformation include vegetable production to feed Asia's booming cities, diversification of export crops in Thailand, vegetable production in Malaysia's Cameron Highlands, flower production in Yunnan Province of China and opium replacement in the Golden Triangle. Access to the market is necessary for transformation, but changes are also driven by farmers' own innovations combined with contributions from last century's crop science, from phytohormones to hybrid technology. Other inputs are irrigation, fertilizers and pesticides, with overuse of the last two a serious threat to the environment as well as to human health. Concerns have also been raised regarding soil erosion caused by cropping on steep slopes. In addition to building roads and airports, government support has also come in the form of cheap credit for orchard establishment and more efficient quarantine procedures to facilitate exports. Cross-border trade that brings opportunities to inaccessible border regions will be further enhanced by regional free trade policy, particularly when liberalization of trade in fruit and vegetables is specified such as that just signed by ASEAN and China. Finally, a case is made for the need to improve cropping systems in less favorable environment with limited access to the market and the means through which crop scientists can work with farmers to bring this about.

Keywords: Crop diversification, Flower, Fruit, Intensification of cropping systems,

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