AGROECOSYSTEM CHANGE AND THREATS TO AGROBIODIVERSITY IN THE TROPICAL MOUNTAINS OF XISHUANGBANNA, YUNNAN, CHINA

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Agroecosystems in the Xishuangbanna Dai Autonomous Prefecture of southern Yunnan Province (China), as in much of Southeast Asia, are undergoing rapid and profound change. Among the transformations most significant for agrobiodiversity is a decline in the practice of shifting cultivation and its replacement with plantations of industrial crops including rubber and a host of fruits grown in monocultures. Where possible in the region, rice cultivation in paddies is also being extended. Although agricultural patterns in the Southeast Asian region have always been highly dynamic, the scope and pace of the changes occurring now may be unprecendented and have yet to be fully appreciated.

Xishuangbanna is within the center of diversity for rice and is home to more than 400 upland rice varieties. This case study explores ongoing and future effects of these shifts on the conservation of the diversity of upland rice as well as of many vegetables commonly intercropped with rice in swiddens. It also discusses the possible effects of replacing cyclic cultivation systems with far less diverse and permanent plantations. The paper suggests that these changes may also have complex effects on the diversity of other cultural practices. The possible economic, political, and demographic causes of these shifts are also discussed. Finally, the paper outlines some recent and promising countercurrents to agrobiodiversity loss. As some smallholder households explore new agricultural opportunities they are adding diversity to plantations of industrial crops.