Rubber versus elephants: Conflicts of human land-use and wildlife habitat in Southern Thailand

Conflicts between humans and wildlife have rapidly increased in numbers over the last decades. This increase is mainly due to a rising human population and subsequently expanding areas of human land-use. Rubber plantations in particular replace more and more ecologically important forests throughout Southeast Asia. This expansion leads to increasing crop raiding and destruction by wildlife, mainly elephants (Elephas maximus), evoking a negative attitude of humans towards wildlife and their protective status. Although rubber is an important and abundant cash crop for many farmers in Southeast Asia, few studies have yet investigated rubber-related conflicts with elephants and appropriate management techniques. We interviewed 180 farmers living around the Tai Rom Yen National Park in Southern Thailand on the extent of conflicts with wildlife and the impacts on farmers' livelihoods as well as their attitude towards wildlife conservation using semi-structured questionnaires. Wildlife damage was not as much a concern as damage through diseases or insects but still 37% of respondents reported damage caused by wildlife. Among them, 53% experienced damage due to elephants although it was squirrels (Sciuridae spec.) that were seen most often on farmland (58% of interviewed farmers). For several wildlife species more visits in diversified farming systems compared to monoculture plantations were recorded, however not for elephants. Farmers who cultivated different crops had a higher income than farmers with monoculture cultivations, potentially making it easier for them to cope with some losses due to wildlife. More than 75% of damage in rubber cultivations occurred in rubber seedlings and saplings while older plantations were hardly susceptible to wildlife damage. Prevention measures should therefore focus on protecting young plantations of rubber.