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Harnessing the push-pull technology for biodiverse agroecosystems in East Africa: the UPSCALE project

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The push-pull technology is a mixed cropping system practiced in smallholder tropical cereal farming in areas of East and Central Africa. Push-pull systems harness the chemical interactions of companion plants and insects to provide highly effective pest protection and yield enhancement of crops. In this talk I will present the EU Horizon 2020 project UPSCALE which is working to upscale the push-pull technology for sustainable agricultural intensification in East Africa and beyond. Major focal points of the project include investigation of how landscape-level factors influence the effectiveness of push-pull systems, how increases in the landscape-level amount of push-pull cropping influences arthropod communities within and outside crops, and how transdisciplinarity can help to address key bottlenecks for the implementation of push-pull practices at scale. From this I will discuss and highlight key knowledge and practice gaps for the broader expansion of biodiversity-enhancing intensification practices in tropical agroecosystems.