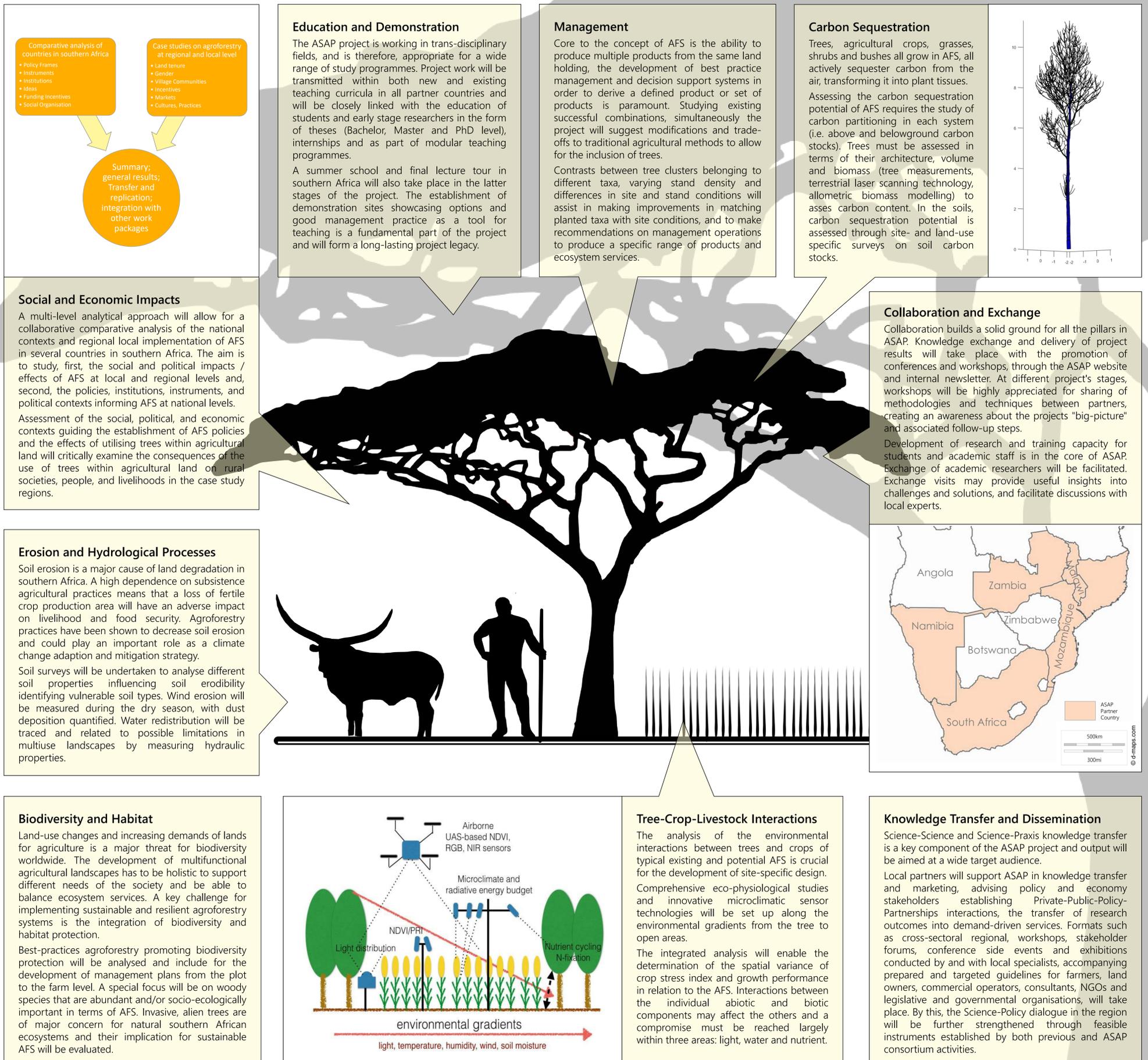


# Agroforestry in southern Africa - new pathways of innovative land use systems under a changing climate

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New and innovative land use solutions are needed to adapt to a rapidly changing climate and to mitigate the predicted impacts on rural livelihoods. Projected changes to current climate patterns are suggested to severely impact southern Africa in the near future negatively affecting economic, ecological and social aspects of sustainable development. Agroforestry Systems (AFS) present the potential to improve the bio-economy in rural areas, to provide an adaptation strategy for human needs, and to preserve natural resources and biodiversity against climate change influences.

Targeting the application of AFS as a suitable response to the impacts of climate change, the transdisciplinary research project 'Agroforestry in Southern Africa - new Pathways of innovative land use systems under a changing climate (ASAP)' incorporates research partners from Namibia, Zambia, Mozambique, Malawi, South Africa and Germany.



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## Agroforestry in southern Africa - new pathways of innovative land use systems under a changing climate (ASAP)

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New and innovative land use solutions are needed to adapt to a rapidly changing climate and to mitigate the predicted impacts on rural livelihoods. Projected changes to current climate patterns are suggested to severely impact southern Africa in the near future. This may be realised as an increase in drought and flooding events and shifts in rainfall patterns causing a loss of productive cropland, thus, negatively affecting economic, ecological and social aspects of sustainable development.

Agroforestry systems (AFS) present the potential to improve the bio-economy in rural areas, to provide an adaptation strategy for human needs, and to preserve natural resources and biodiversity against climate change influences. Targeting the application of AFS as a suitable response to the impacts of climate change, the research project 'Agroforestry in southern Africa - new pathways of innovative land use systems under a changing climate (ASAP)' with a project period of 2018 to 2021 incorporates research partners from Namibia, Mozambique, Malawi, Zambia, South Africa and Germany.

In a transdisciplinary approach the ASAP project aims to both develop and cement knowledge concerning AFS in southern Africa, utilising simple easily replicable methodology across the entire study region. The project will utilise traditional knowledge and combine it with innovative technical solutions, learning from existing systems and technology. ASAP targets an understanding of the social demands and impacts that AFS can bring to the study region. This is undertaken by attaining an understanding of the needs of stakeholders, land managers and subsistence farmers, as well as acknowledging the potential pressures such actors will face due to a changing climate. Results of the project will aid regional policy makers in evaluating future support for such innovative land-use systems in a science-policy exchange. The project consortium will perform an examination of the effects of the utilisation of trees within a farmed landscape in terms of soil processes, hydrological fluxes and flows, shading and nutrient export as well as assessment of woody biomass production, to allow researchers and land managers to target future research where it is needed. Project output will be designed to promote AFS as a viable approach to land use, agriculture and food production and as a modified alternative to conventional or traditional agricultural practices. The project stands as an interdisciplinary platform for transnational research, capacity building, information exchange, contributing knowledge and solutions for sustainable AFS management, while meeting stakeholder's needs at a grassroots level and promoting the implementation of AFS as an innovative, flexible and sustainable land use system under a changing climate.

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**Keywords:** Agroforestry, Innovation, Interdisciplinary, Stakeholders, Sustainability.