

Modelling succession-disturbance dynamics for improving socio-ecological sustainability of savanna ecosystem: A case study of Park W, transboundary biosphere reserve in West Africa (Junior Fellowship: Dr. Patrice Savadogo)

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Savannas occupy around 20% of the earth's land-surface and are subject to disturbance by fire, grazing and tree cutting. These disturbances if not well managed in the predicted global climate change context may contribute to ecosystem health dysfunction and consequently challenge the sustenance of ecological services and products demanded by society. This project aims at understanding the separate and synergistic role of fire and herbivory disturbance and climate change on the savanna dynamic. We will emphasize the use of quantitative approaches to investigate the mechanisms structuring the savanna ecosystem, including statistical models and computer simulation models. Better understanding of these disturbances regimes is crucial for change prediction, identification of adaptations strategies, and increasing knowledge to support multiple-use management of the savanna. The knowledge gained will be used to formulate management recommendations in the countries sharing the transboundary biosphere reserve (Park W) in West Africa.

Projektbeteiligte

Prof. Dr. Hartmut Stützel

Universität Hannover
Naturwissenschaftliche Fakultät
Institut für Gartenbauliche Produktionssysteme
Abteilung Systemmodellierung Gemüsebau
Hannover

Dr. Patrice Savadogo

Centre National de la Recherche
Scientifique et Technologique (CNRST)
INERA
Département Environnement et Forêts
03BP7047
Ouagadougou
Burkina Faso

