

# **EPRECOT**

## **Research needs**

**1**

Predictions for future climate change indicate that rainfall variability will increase (more heavy rain events and longer drought periods). The understanding and knowledge of the effects of such changes is currently very limited.

**2**

Long term effects of changes in rainfall and rainfall patterns on biodiversity, ecosystem structure, soil structure and the interaction with future climate change and management (e.g. grazing, soil compaction) is largely unknown.

**3**

Multifactor experiments involving all important factors driving ecosystem processes are needed

**4**

Increased precipitation has stronger effects in dry ecosystems than wet ecosystems and long dry periods can have strong effects in wetter ecosystems. The majority of experimental projects have so far been in regions of “average” conditions. Therefore there is a need for more studies and more focus on the “extreme” situations, i.e. wet/dry ecosystems and long term droughts/flooding.

**5**

The “establishment niche” and recruitment of plants related to rainfall amounts and patterns is critical to ecosystem development, but is currently not included in models

**6**

Quantification of response functions (relationships between drivers and their responses) will be very helpful in order to improve mathematical models.