Biochar application to agriculture soil:
- carbon sequestration
- reducing greenhouse gas
- improving soil quality, soil structure, nutrient availability

Extreme Hydrological Processes:
- long term drought
- higher frequency of wet-dry cycle
- flooding

How do drought and wet-dry cycles with biochar amendments impact on agriculture soils:

- Nutrient leaching (e.g. NO$_3^-$)
- Soil pH
- Soil water extractable organic matter (WEOM)
- Soil microbial activities