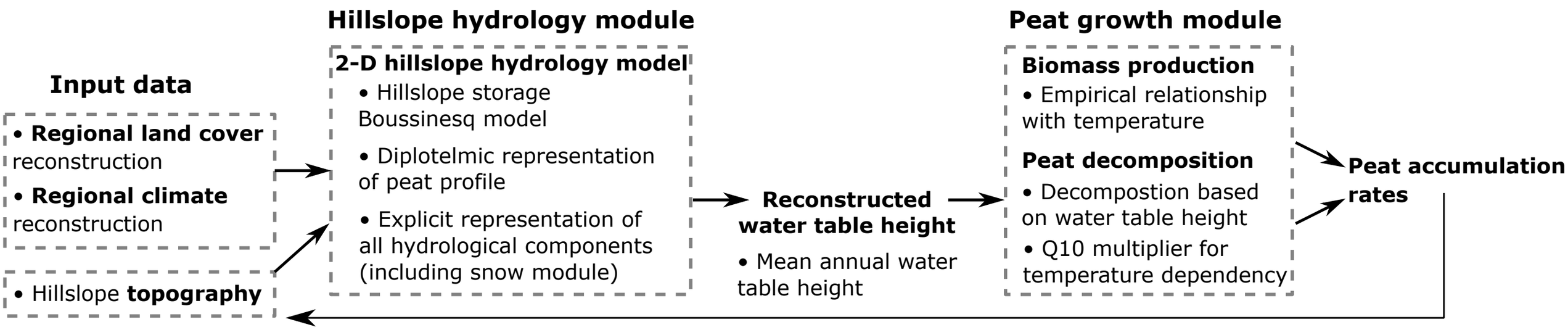
Hillslope hydrology module
Peat growth module
Input data
• Regional land cover reconstruction
• Regional climate reconstruction
• Hillslope topography
2-D hillslope hydrology model
• Hillslope storage Boussinesq model
• Diplotelmic representation of peat profile
• Explicit representation of all hydrological components (including snow module)
Reconstructed water table height
• Mean annual water table height
Biomass production
• Empirical relationship with temperature
Peat decomposition
• Decompostion based on water table height
• Q10 multiplier for temperature dependency
Peat accumulation rates