Term	Definition
Water stress	Demand-driven water scarcity, calculated as use to availability ratio
Water shortage	Population-driven water scarcity, calculated as water availability per capita
Local runoff	Runoff occurring internally within a region (in this paper a sub-basin).
Upstream runoff	Runoff of the possible upstream region (in this paper a sum of runoff of upstream sub-basins)
Natural discharge	Total water availability before taking into account possible upstream water withdrawals, here calculated as local runoff + upstream runoff.
Actual discharge	Total water availability after upstream water withdrawals; calculated as natural discharge − upstream withdrawals (local runoff + upstream runoff − upstream withdrawals).
No dependency	Upstream inflows do not influence whether or not a region experiences scarcity, i.e. if a region experiences scarcity or not with only local runoff, additional water from upstream does not change this situation, nor do the upstream water withdrawals. Note that the severity of scarcity may still be affected by upstream inflows and water withdrawals. No dependency can be expressed as local demand $\leq$ local runoff OR local demand $\geq$ natural discharge.
Dependency	Upstream inflows influence whether a region experiences scarcity or not, i.e. how water is managed upstream can change the type of water management regime needed downstream. Dependency can be expressed as local runoff < local demand < natural discharge. Two sub-types of dependency can be distinguished (as follows).
Hidden dependency	Scarcity category is altered by upstream inflows but not by upstream water withdrawals, i.e. local runoff is not enough to meet the local demand but additional water from upstream means the region experiences no scarcity instead of scarcity. Upstream withdrawals are small enough not to change the scarcity status. Hidden dependency can be expressed as local runoff < local demand $\leq$ actual discharge.
Open dependency	Scarcity category is altered after accounting for upstream water withdrawals, i.e. while upstream inflows in the hidden dependency allowed the region to avoid scarcity, upstream withdrawals now mean that the SBA does experience scarcity and more intense water management regimes are needed downstream. Open dependency can be expressed as actual discharge < local demand < natural discharge.