

Water resources context

1. History of water research / management
 - a) Understand biophysical world / build dams
 - b) [Social-ecological] systems perspective
2. Complexity, cooperation and integration
 - a) Irreducible uncertainty
 - b) Vertical and horizontal inter-dependence
3. State of the system
 - a) Capacity to provide ecosystem services
 - b) Capacity to adapt to change

Future questions

1. **External knowledge-related realities**, e.g. ever-increasing potential for data and information overload and an increasing rate of knowledge production, availability and mobility.
2. **External knowledge-related uncertainties**, e.g. relating to a political situation, availability of quality tertiary graduates, and environmental values and attitudes.
3. **Internal knowledge-related realities**, e.g. organisation may be understaffed making participation in time-consuming learning practices, like reflection, difficult.
4. **Internal knowledge-related uncertainties**, e.g. the sustained availability of experienced mentors may be affected by high staff turnover.

Core competencies

1. Adaptive capacity of complex systems
 - a) Build absorptive capacity
 - b) Navigate out of “poverty traps”
2. Co-learning / social learning / CoP
 - a) Co-reflection and Co-action
 - b) Engage broad learning system
 - c) Learn and adapt as ultimate strategy
3. Effectively use bridging organisations