

Key Competencies in Sustainability

Key competencies in sustainability provide a recognizable qualification profile for sustainability professionals. Graduates with these competences have the knowledge, skills, and attitudes necessary for successful task performance and real-world sustainability problem solving. Key competencies in sustainability build on basic skills such as ethical reasoning, critical inquiry, and communication.

Competence in sustainability problem solving is composed of five components, which are *systems-thinking* competence, *futures-thinking* competence, *values-thinking* competence, *strategic-thinking* competence, and *interpersonal* competence. They must be combined for successful sustainability problem solving.



Interpersonal Competence (Professional Skills)

Ability to motivate and facilitate sustainability problem-solving. It requires strong communication and negotiation skills, as well as expertise and experience in collaborating in teams and with stakeholders of different socio-demographic backgrounds, knowledge, preferences, and attitudes. Interpersonal competence is a basic ingredient in each of the other competencies.

Exemplary tasks include:

- Identifying and productively working with internal and/or external stakeholders;
- Raising public awareness and building support for projects, programs, and policies.

Systems-Thinking Competence

Ability to identify and explain causes and effects in sustainability problems and solutions, e.g.:

- How actions, activities, and behavior influence negative or outcomes;
- How actors' motives, needs, assumptions, and mandates influence actions, activities, and behavior;
- What role technology and infrastructure play in problems and solutions;
- What effective intervention points are;
- What dynamics, cascading effects, and delays occur in problems and solutions.

Exemplary tasks include:

- Understanding root causes and dynamics of sustainability issues;
- Understanding how projects, programs, and policies intervene in the problem and create positive effects.

Futures-Thinking Competence

Ability to think systematically about the future and long-term consequences of actions, e.g.:

- What futures are plausible (scenarios);
- What future is most likely (forecast);
- What futures are desirable (visions);
- What futures are sustainable (visions based on sustainability principles);
- What significant future impacts could result from actions or technologies (e.g., shocks);
- What future coming generations might desire;
- How to discern which time scales are relevant to problems and solutions.

Exemplary tasks include:

- Creating future visions around development goals and targets;
- Developing contingency plans.

Values-Thinking Competence

Ability to identify, explain, and apply principles of sustainability justice, integrity, and ethics, e.g.:

- What sustainability principles and goals exist and how they are being justified;
- How justice norms vary across and within cultures and times;
- How integrity norms can guide goal setting;
- What are significant risks and for whom;
- How to specify and apply sustainability principles and goals.

Exemplary tasks include:

- Reviewing and revising goals and targets for projects, programs, and policies
- Assessing the sustainability performance of projects, programs, and policies.

Strategic-Thinking Competence

Ability to understand and create strategies for positive change, e.g.:

- What strategies for positive change exist in different cultures and times;
- How to apply theories of change;
- How to overcome barriers and utilize assets;
- How to create effective sequences of actions;
- How to coordinate actions among allies.

Exemplary tasks include:

- Designing effective projects, programs, and policies
- Creating a plan to coordinate actions between departments or organizations in joint projects or programs.