

Complex Interdisciplinary Questions Exemplified: Ecological Sustainability

When addressing a complex question covering more than one domain of thought, unpack the primary question by formulating questions according to domain. Does the question, for example, include an economic dimension? Does it include biological, sociological, cultural, political, ethical, psychological, religious, historical, or other dimensions? For each dimension of thinking inherent in the question, formulate questions that force you to consider complexities you otherwise may miss. Make sure you include all essential questions on your lists of questions within each domain.

When focusing on the various domains within complex questions, consider such questions as:

- What are the essential domains of thinking inherent in this complex question?
- In other words, are we considering (in good faith) all the relevant, significant domains within the question?
- What important domains might we be leaving out?

Before articulating domains within the original question, and then the questions within each essential domain, make sure your original question is appropriately detailed for the context and exact situation.

The following example focuses on the problem of the destruction of the earth's resources and overall ecology, primarily through human activity. We begin by asking this vague question: *How do we save the earth?* Then we bring greater precision to that question until we have clear direction (through the precise question) for our thinking. This enables us to clearly see and then effectively address the complexities in the problem.

Note that many more questions would need to be added to the domains in the example below, and other domains would need be added. This is only a starting point for thinking about sustainability and about how to approach complex questions more generally.

Example of a Complex Interdisciplinary Question Focused on Ecological Sustainability and Development

Out of concern for the health of the earth, we might begin with a vague question like:

What can we do to save the earth?

We can detail this vague question, making it more *precise* as follows:

How can we best address the enormous challenge of sustaining and enhancing the earth, its resources, and its atmosphere in order to prevent mass extinction, and so the earth can be restored to the highest levels of health for all its creatures and living entities?

The following are some domains of the questions inherent within this question, and some sample questions within each domain. Note that these domains do not exist in isolation, but instead overlap with each other, sometimes extensively.

Ecological

- What scientific information is relevant to effectively answering the question at issue? (This will entail a very broad list of questions)
- What are some of the *significant documented* human activities currently affecting other species and their abilities to live and thrive within their specific ecosystems? What species' populations have disappeared or are endangered; what species have so overpopulated that they create harmful ecological imbalances (e.g., humans)?
- What are some *significant documented* human activities that are most negatively affecting the health of humans and other sentient creatures?
- What are the *significant documented* human activities most negatively affecting the earth's atmosphere?
- What are the *significant documented* human activities most negatively affecting the earth's waterways and oceans?
- What are the *significant documented* human activities most negatively affecting the earth's air quality?
- What are the *significant documented* human activities most negatively affecting the earth's soils?
- What are some *significant proven viable* solutions humans can use now to limit and reverse the degradation of the earth, and to restore healthy ecological balances across the planet?
- What are some *significant proven viable* solutions humans can use now to restore native habitats and rewild the earth's surface everywhere possible?
- What are some *significant proven viable* solutions humans can use now to restore water habitats and rewild the earth's waterways and oceans everywhere possible?
- What are some *significant proven viable* solutions humans can use now to improve air quality and atmospheric quality?
- What are the most *effective* regenerative farming practices?
- Given current research, what appear to be the most promising scientific developments for ecological health as we move into the future?

Chemical

- What chemicals are responsible for ongoing damage to the environment, and in what ways?
- What benefits do these chemicals have? To what extent does corporate messaging exaggerate these benefits? To what extent do other types of messaging over-represent these benefits? To what degree do the environmental implications offset any benefits these chemicals may have?
- How can potentially harmful chemicals be produced, stored, transported, used, and disposed of more safely and efficiently, such that they will do less environmental damage while still providing needed benefits?
- What chemicals cannot feasibly be produced and used such that their benefits outweigh their environmental harms? What such chemicals have been identified in the past, and how can these past cases inform our current assessments?

Ethical

- What ethical principles should guide the way we think about the question at issue?
- What ethical principles have been violated through human treatment of the planet earth?
- In terms of the health of the earth, what are our ethical obligations to each other, to other species, and to future life on earth?
- How can we better meet our ethical obligations in the context of ecological sustainability?

Economic

- What economic benefits have been and are achieved through ecological destruction? Are these benefits justifiable, given the ecological destruction they cause?
- What economic forces stand in the way of developing and establishing reasonable ecological practices across the world?
- What long-term economic harm has been caused by ecological destruction?
- To what degree has economic productivity been negatively impacted due to harming the environment? (For example, by introducing more neurotoxins to our drinking water, air, and food, people become sick and are then less effective in their work – or, in some cases, become unable to work entirely.)

- In what ways can we provide for the material needs of humans while limiting and reversing damage to the environment and our bodies? In what ways do vested economic interests make these changes difficult to implement, and how can the influence of these interests be diminished?
- What appear to be the most promising economic practices for improving ecological health across the planet?

Political

- What political forces stand in the way of developing and establishing reasonable ecological practices across the world? What roles does power play in answering the question at issue?
- To what extent, and in what *significant* ways, does politics influence the way people perceive the health of the planet and their relationships with the earth's ecosystems?
- What and whose interests do each of these relationships and influences serve?
- What and whose interests do each of these relationships and influences harm?
- How can politics be used as a tool to facilitate greater sustainability? What educational, legal, and other changes would this require?

Psychological:

- What psychological forces stand in the way of developing and establishing reasonable ecological practices across the world?
- What role does selfishness play in ecological destruction?
- How does human intellectual arrogance stand in the way of facing and addressing the problem of ecological destruction?

Sociological:

- What sociological forces stand in the way of developing and establishing reasonable ecological practices across the world?
- What role does groupishness (group selfishness) play in ecological destruction?
- How does group conformity stand in the way of facing and addressing the problem of ecological destruction?

Historical:

- What historical forces stand in the way of developing and establishing reasonable ecological practices across the world?
- How have humans tended to view the earth's resources historically?
- What can we learn from the way humans have treated the earth in the past to develop best practices for the earth in the future?

Religious:

- What religious forces stand in the way of developing and establishing reasonable ecological practices across the world?
- What can religious institutions better do to contribute to the health of the earth?

Educational:

- What educational forces stand in the way of developing and establishing reasonable ecological practices across the world?
- How do schools typically treat the issue of sustainability?
- To what degree is the health of the earth considered an important issue within schools, colleges, and universities anywhere in the world?
- How and where are people learning about the problems embedded in achieving ecological health across the planet?