

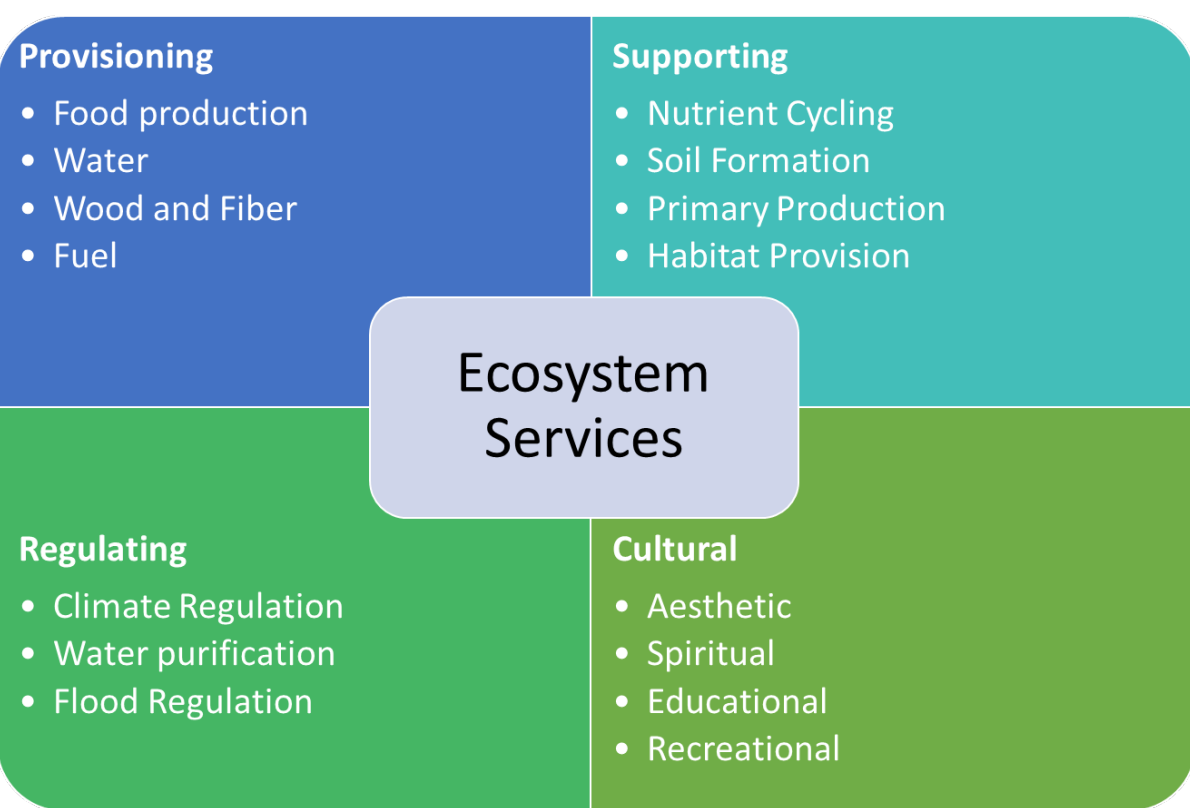
## 1. INTRODUCTION

- ❑ Tackling solution-resistant challenges to sustainability requires **both scientific understanding and consideration of the human values, norms, and institutions** that drive unsustainable human demands on natural systems.
- ❑ **Case analysis** is a commonly-used, cross-disciplinary method for ethics instruction that provides opportunities for students to:
  - ❑ grapple with complex, open-ended problems
  - ❑ Identify and apply relevant ethical principles
  - ❑ Hone their critical thinking and collaborative problem-solving skills
- ❑ **In this presentation we:**
  - outline a way to conceptualize sustainability as the long-term preservation of life-supporting natural systems
  - present an illustrative case concerning population and climate change from the *Intercollegiate Ethics Bowl* 2019-20 competition
  - provide additional resources for teaching the ethical dimensions of sustainability.

## 2. WHAT IS SUSTAINABILITY?

We conceptualize sustainability as referring to the long- term dependence of human and nonhuman well-being on Earth’s biophysical systems and distinguish between two types of sustainability:

- ❑ **Throughput or environmental sustainability** involves living in such a way as to not consume more than our environment can provide over the long term.
- ❑ **Ecological sustainability** refers to not destabilizing or degrading the ecosystems and the many services they provide.

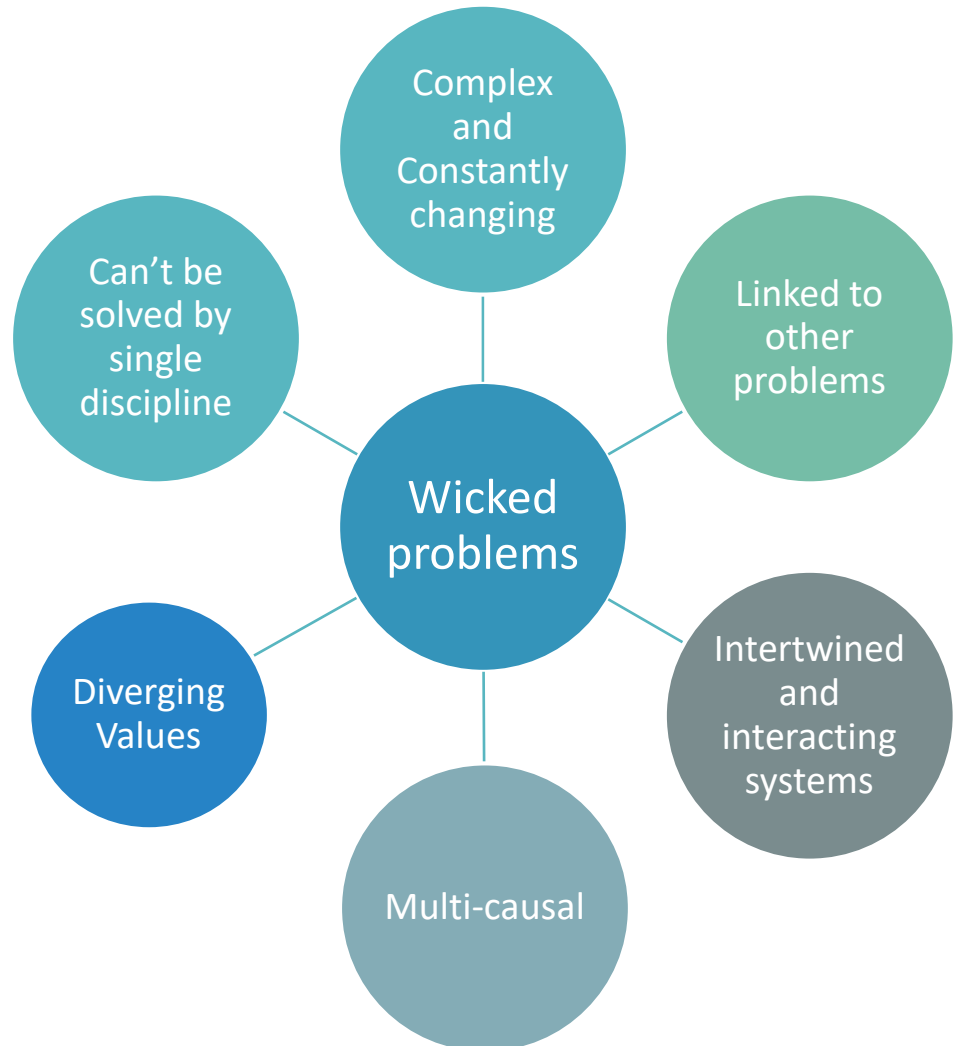


Four types of ecosystem services as outlined by the Millennium Ecosystem Assessment (MA 2005).



## 3. CHALLENGES TO SUSTAINABILITY

- ❑ Challenges to sustainability arise at the intersection of intertwined and complexly interacting planetary and human systems
- ❑ Addressing solution-resistant (“wicked”) problems such as climate change, biodiversity loss, and environmental degradation thus requires consideration of the human values, institutions, and norms that drive unsustainable choices.



Some attributes of wicked problems (Rittel and Webber, (1973)

The search for more sustainable ways of living inevitably leads to ethical quandaries.

## 4 . SUSTAINABILITY ETHICS

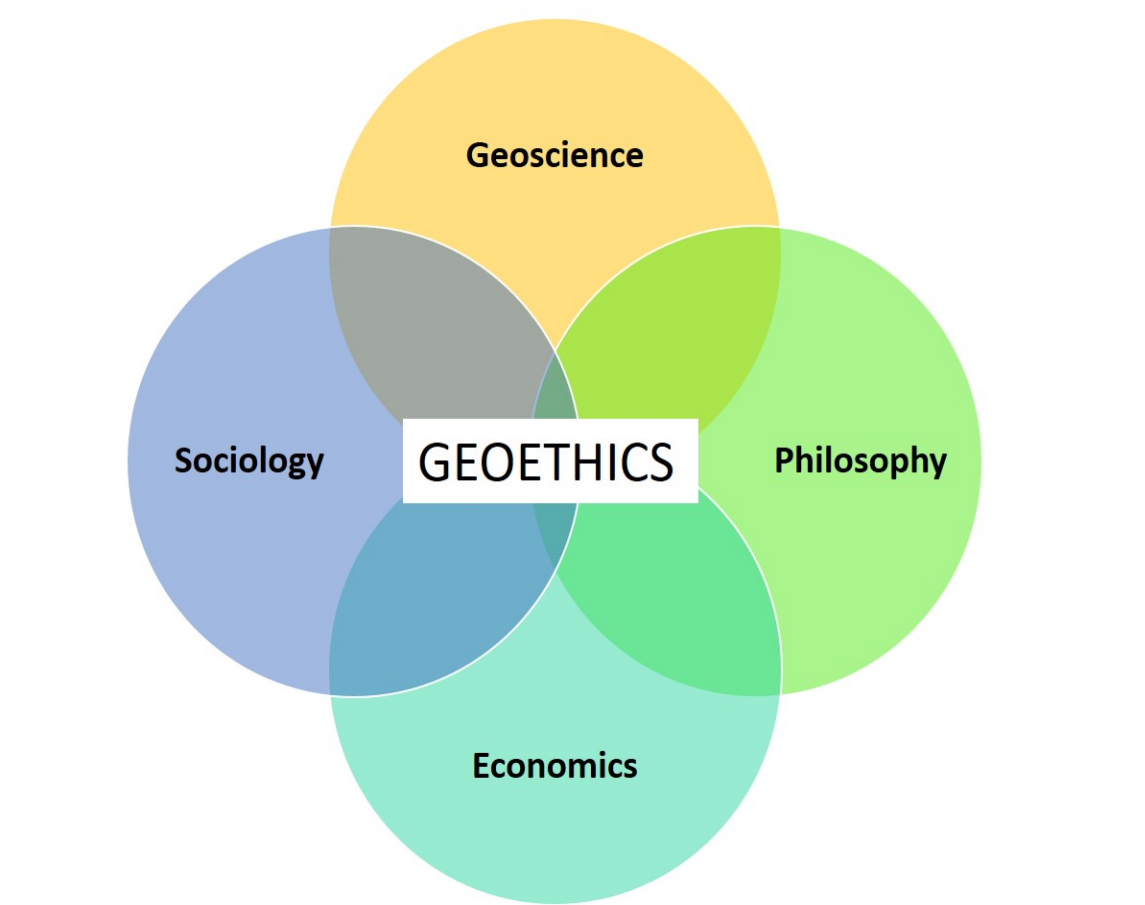
We have identified **four principles of a sustainability ethics derived from our conceptualization of sustainability and core commitments of common morality\* to respect and take care not to harm others** (Curren and Metzger, 2017):

1	Take care to ensure that the human attributes, practices, institutions, systems, and policies within your control, authority, or influence are conducive to ecological and throughput sustainability.
2	Seek fair terms of cooperation conducive to sustainability. Actors whose actions affect each other have an obligation to cooperate in negotiating fair terms of cooperation in living in a manner that is collectively sustainable.
3	Do not obstruct transparency and cooperation with regard to sustainability.
4	Do not subject individuals or collectivities to detrimental reliance. Do not cause anyone to be in a position of fundamental reliance on hazardous or vulnerable systems or resources – systems or resources that cannot be relied on without exposure to unreasonable risk to their fundamental interests.

\* We consider a basic ethic of mutual respect and taking care not to harm others as **core aspects of** common morality for two reasons: 1) their strong and widespread endorsement by diverse theories of morality and **cultures** (Gert, 2007); 2) a basic ethic of mutual respect and taking care not to harm others is so self-evident **that it has served as an unwritten basis of common law liability** in the United States, England and Canada (White, 1980).

## 5. ETHICS IN THE GEOSCIENCE CLASSROOM

- ❑ Ethical inquiry has not traditionally been part of geoscience education
- ❑ This is changing, due in part to the International Association for Promoting Geoethics (<http://www.geoethics.org/>)
- ❑ The **Teaching Geoethics Across the Geosciences Curriculum Web site** (Mogk and Bruckner, 2017) is an excellent place to find practical advice for incorporating ethics into Earth science instruction.



Geoethics at the intersection of geoscience, philosophy, economics, and sociology ([www.geoethics.org/definition](http://www.geoethics.org/definition) ).

## 6. USING CASE STUDIES TO TEACH ETHICS

- ❑ Case analysis is used for teaching ethics across the disciplines. It provides opportunities for students to grapple with the complexity inherent in the “wicked” problems of sustainability (Sprain and Timpson, 2014).
- ❑ The case study presented here is from the *Intercollegiate Ethics Bowl* program, a competition sponsored by the Association for Applied and Practical Ethics (APPE).
- ❑ Other recent climate change-related case studies from the *Ethics Bowl* include:
  - “Fight Over ‘Fridays for Future’”
  - “The Green New Deal”



## 7. CASE STUDY: HAVING CHILDREN AS THE CLIMATE CHANGES

Rep. Alexandria Ocasio-Cortez (D-NY) recently posed a difficult question in an Instagram live stream: “Basically, there’s a scientific consensus that the lives of children are going to be very difficult [due to climate change]. And it does lead, I think, young people to have a legitimate question: Is it okay to still have children?”

Politically conservative **commentators quickly characterized Ocasio-Cortez’s comments as a “nochild policy.” They deemed her view ugly, frightening, and “disturbingly authoritarian, even fascistic.”** One commentator suggested that she **may have been having a mental breakdown.** As one news show host put it, “She’s saying, ‘don’t have kids’ because it’s going to hurt our country. So if you don’t believe in kids, and families, and the flag, then you’re effectively admitting to civilizational suicide.”

But many young people share 29-year-old Ocasio-Cortez’s worry.

In a recent poll by Business Insider, approximately 38% of people between the ages of 18 and 29 and 34% of people between 30 and 44 agreed that climate change should be factored into the decision to have children or not. Similarly, in a 2018 New York Times survey of people between 20 and 45, 11% of respondents indicated that they did not want children or were unsure about having children because of the threat of climate change. A full 33% of respondents stated that they were having fewer children than they wanted to have because they were concerned about climate change. Indeed, the United States birthrate has hit record lows for the past several years.

Recent reports on climate change paint a dire picture. “The impacts and costs of climate change are already being felt in the United States, and changes in the likelihood or severity of some recent extreme weather events can now be attributed with increasingly higher confidence to human-caused warming.” According to the world’s leading scientists, we have twelve years left to reverse course and prevent the worst consequences of climate change. But mustering the political will to make the required changes will be difficult.

Concerns over procreating in the face of climate change fall into two broad categories: **that today’s children will suffer the brunt of the consequences of climate change, and that having more children will make the problem of climate change worse by increasing the burden on the planet.** As Travis Rieder, ethics professor and father of one, explains: “Procreating both contributes to climate change and creates a new victim of climate change, . . . I don’t know whether people should have kids, or whether they should have a big family, but I do believe that climate change should be part of their deliberation, because the consequences of bringing a new person into a changing world are really morally serious.”

Another factor to consider is **whether today’s children will be the ones to find the solution to climate change. Your child may grow up to be a leading scientist, an environmental advocate, or at least vote for political solutions to climate change.** Erle Ellis, a geography and environmental systems professor, puts it this way: **“People who are so concerned they would even consider not having children are the very kind of people who can be part of the solution. By having children they have doubled down on the future. They are motivated.** Because they know if they don’t succeed, they are failing not only themselves but this new generation they have brought into the world.”

Source: <https://www.appe-ethics.org/assets/docs/2019-REB-Cases-Revised.pdf>

## ETHICALLY SIGNIFICANT ASPECTS OF THIS CASE

Here are some significant aspects of this case in terms of the principles of **sustainability ethics** outlined in Section 4:

- ❑ **Principle 3** is violated by the commentators who grossly misrepresented and ridiculed what Rep. A. O. C. said. Undermining honest and well-informed attempts to **seek and accept fair terms of cooperation** conducive to sustainability is unethical.
- ❑ **Principle 4** is violated with respect to **today’s children [who] will suffer the brunt of the consequences of climate change,** since they are being born into a civilization that **relies on systems or resources that cannot be relied on without exposure to unreasonable risk. A growing population is one aspect of growing impact on natural systems.**
- ❑ **A human rights perspective is also relevant to ethically evaluating family size.** For example, the UN recognizes universal access to safe and affordable water as a human right, and population pressures impact governments’ ability to secure water rights for everyone.
- ❑ **The suggestion that having more children is a way to address climate change is confused.** Perpetuating the practice of having unsustainably large families is a violation of the basic principle that people should live sustainably or **do their part to not diminish the opportunities for everyone to live well in the future (Principle 1).**



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