

**SGO2302**  
**Exam questions**  
**Spring 2020**

Please answer **one** of the following three questions. We are looking for you to “weave together” the themes and readings discussed in the course. Make sure to address all concepts and explicit tasks listed in the exam question you choose to answer. The quotes in the text are meant to help contextualize the exam questions and you are not required to engage with them in your answer.

You are expected to draw from the course readings and lectures in your response, and to use a consistent style of referencing. Please include references within the text, e.g. (Leichenko and O’Brien 2019), rather than as footnotes or endnotes. The minimum length of the home exam is 10 pages (excluding references) and maximum 14 pages, using 12 point font and a spacing of lines 1.5 (approx. 4000-6000 words). Note that the questions do not require you to do new research or find external literature – you should be able to **use the course curriculum to answer them**. *If you choose to use external literature, it should only be supplementary.*



Photo by Australian Maritime Safety Authority

## 1. Dealing with Impacts: Insights into Human Security

The 2020 bushfires in Australia remind us once again of the devastating impacts of extreme events and their link to climate change. According to the United Nations Environment Programme (UNEP)<sup>1</sup>, “this bushfire season has given Australians, and the watching world, an insight into the humanitarian, ecological and economic catastrophes of a changing and warming climate.” The impacts of extreme climate events include more than burned forests and lost habitats; they are also about human security, human-environment relationships, and ultimately the capacity for life to thrive on the planet.

Imagine that you have recently started a job as an intern with UNEP. You are aware that the humanitarian, ecological and economic impacts of climate change vary depending on the context and situation of those experiencing the events, and that there are important equity dimensions to such extreme events, including uneven outcomes and the creation of “winners and losers.” Reflecting on your experience from the *Environment and Society* course, you suggest that UNEP promotes a stronger focus on human security in a warming climate. Your supervisor is enthusiastic about your suggestion and has asked you to write an essay that highlights how the social sciences can contribute towards a deeper and broader understanding of the impacts of extreme climate events.

Drawing on what you learned in the *Environment and Society* course, **provide an integrative analysis of the links between extreme events and human security.** In your answer,

- Provide a brief definition of human security and how it can be viewed as an integrative concept.
- Present and discuss two insights into how the human security dimensions of climate change are important for understanding the impacts of extreme events, drawing on one or several of the following concepts/dimensions: vulnerability, adaptation, equity, culture, worldviews, and emotions.
- Suggest ways in which such insights can be included into strategies for responding to extreme events.

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<sup>1</sup> <https://www.unenvironment.org/news-and-stories/story/ten-impacts-australian-bushfires>



Artwork by Cristina Daura

## 2. Discourses on Change: Should we be Optimistic or Pessimistic about the Future?

As the COVID-19 pandemic unfolds, a multitude of narratives are surfacing that in different ways speak to the possibilities for or limits to societal sustainability. Many such narratives focus on the implications for action on climate change. In a recent opinion piece published in *Time*<sup>2</sup>, Christiana Figueres, former head of the UN climate change convention and founder of the “Global Optimism” group, expressed her optimism for action on climate change based on lessons learned during the current pandemic: “I believe the last few weeks, as terrible as they have been for so many people, have taught us crucial lessons that we needed to learn in order to enter a new era of radical, collaborative action to cut emissions and slow climate change.”

Such optimism is contrasted by narratives that reflect a more pessimistic perspective on the possibilities for climate change action at this moment in time. Jason Bordoff, former senior director of the U.S. National Security Council and professor of professional practice at Columbia University’s School of International and Public Affairs, expressed his pessimism in a recent opinion piece published in *Foreign Policy*<sup>3</sup>: “COVID-19 may actually erode public support for stronger climate action, as the pace of climate ambition wanes during times of economic hardship.”

These narratives reflect different societal discourses on climate change and the possibility for social change. Your local newspaper is running a special issue on different approaches to climate change action and has asked you to write an essay on the topic. Drawing on your knowledge from the *Environment and Society* course, write an essay **discussing how an integrative discourse can help move beyond “optimism” and “pessimism” to gain a deeper and broader perspective on the solution space for climate action.** In your answer,

- Briefly explain what a discourse is, and discuss the role of worldviews, values and beliefs for what discourses people resonate with.
- Discuss how and why the biophysical, critical, and dismissive discourses differ when it comes to identifying what kind of problem climate change is and what solutions are possible and desirable.
- Discuss how an integrative discourse can contribute to an alternative perspective on “optimism” and “pessimism” regarding climate action in a time of crisis, providing examples of what this might look like in practice.

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<sup>2</sup> <https://time.com/5808809/coronavirus-climate-action/>

<sup>3</sup> <https://foreignpolicy.com/2020/03/27/coronavirus-pandemic-shows-why-no-global-progress-on-climate-change/>



Photo by BAY ISMOYO/AFP/Getty Images

### 3. Climate Change and Biodiversity Loss: Bridging the Gaps for Transformative Change

In order to meet the many global challenges of our time, a growing number of researchers and decision makers are calling for transformative change. Yet what kinds of transformations are needed? Many of the challenges society faces are interrelated and responding to them requires taking into account the complexity of such relations. This is also true when it comes to the challenges of climate change and biodiversity loss, which is often perceived as two separate issues. In May 2019, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) published its “Global Assessment Report on Biodiversity and Ecosystem Services,” which points to the interlinkages between biodiversity loss and climate change and suggests how to approach these challenges. In summarizing the report, the online magazine, Inside Climate News<sup>4</sup> wrote:

Because climate plays such a significant role [for biodiversity], avoiding the collapse of ecosystems entails rapidly cutting net emissions of carbon dioxide to zero in the next few decades. (...) [Yet] this goes even beyond the complete and rapid shift from uncontrolled use of fossil fuels to clean energy that scientists say is needed to avoid unacceptable climate risks. What's needed, this report said, is "a change to the definition of what a good quality of life entails—decoupling the idea of a good and meaningful life from ever-increasing material consumption."

IPBES is currently initiating a “Transformative Change Assessment” to support policy-makers in identifying transformative actions that can help them meet the goals of the Convention on Biodiversity. Surprisingly few links have been made between climate change and biodiversity loss when it comes to transformative change. As a student of human-environment relationships, you are asked to “bridge the gaps” by highlighting the contributions of the social sciences for understanding and furthering transformations. Drawing on your knowledge from the *Environment and Society* course, write an essay where you **discuss the characteristics of transformative change needed to address the challenges of both climate change and biodiversity loss in ways that are sustainable and equitable**. In your answer,

- Briefly describe some of the main interlinkages between climate change and biodiversity loss.
- Discuss how the Three Spheres of Transformation can be used to create a strategy for responding to both biodiversity loss and climate change.
- Exemplify using a system, e.g. the energy system, the food system, the transportation system, etc., and highlight interlinkages between this and other systems that will be important to consider in order to generate transformative responses.

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<sup>4</sup> <https://insideclimatenews.org/news/05052019/climate-change-biodiversity-united-nations-species-extinction-agriculture-food-forests>