Climate Cohort

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Introduction: Integrating Science, Society, and Self

Engaging with the concept of sustainability requires a fundamental understanding of our climate, how and why it is changing, and what we need to do to protect it. A good place to start is by recognizing the distinctions between the following terms as they are often used alongside one another but describe different things:

- The Earth's **climate** consists of the long-term conditions that arise from interactions between the atmo-, hydro-, cryo-, litho-, and bio-spheres which can be changed by either natural or anthropogenic forces (IPCC, 2021a).
- **Climate change** is the direct or indirect result of human activity that alters the relationship between spheres beyond the effect of natural forces, largely from changing the composition of the atmosphere and the use of land (IPCC, 2021a).
- The **greenhouse effect** allows life to thrive thanks to greenhouse gases (GHGs) present in the atmosphere — primarily carbon dioxide, methane, and nitrous oxide — that allow the Sun's energy to heat Earth's surface and keep that heat from being lost to space, thus maintaining a habitable temperature (NASA, 2022a).
- **Global warming** is a symptom of the greenhouse effect whereby long-term global surface temperatures have risen since the onset of industrialization and have noticeably accelerated since the mid-1900s — predominantly caused by a reduction in the biosphere's ability to sequester carbon dioxide and anthropogenic emissions that are increasing atmospheric concentrations of GHGs (NASA, 2022b).

Global warming is causing Earth's climate to change, and the wide-ranging impacts these changes will undoubtedly have on life as we know it is why we call it a '**climate emergency**.' Human activity is largely to blame, but that does not mean everyone is equally responsible. Developed countries disproportionately contribute to climate change through their dominance in transportation, industry, and cumulative wealth (IPCC, 2021b) which in turn represent the influence of Western worldviews, capitalism, neoliberalism, colonialism and such forces' collective resistance to essential systemic change. Therefore, addressing the climate emergency requires an **integration of science, society, and self**. No one sector can address it alone, and **climate justice** must be embedded in these approaches. Science — not merely Western science but also the traditional ecological knowledge and technology of Indigenous Peoples — combined with equitable consideration for the power

"Our history shows us that hands and minds made this present world, so it is hands and hearts and minds that can remake it with Indigenous and frontline communities leading this remaking."

– India Logan-Riley, Māori climate activist, Aotearoa (New Zealand)

and wellbeing of our communities and individuals, especially those least responsible and yet most impacted, are all required to adequately address the existential problem in front of us.

Actions and Solutions at UBC and Beyond

Grassroots responses to the climate emergency, such as the Global Climate Strikes in 2019, have drawn attention and encouraged action to fight climate change. This community mobilization was responsible for UBC's Declaration on the Climate Emergency and Climate Emergency Task Force (CETF) Report which outlines steps to elevate IBPOC voices and perspectives within leadership positions and the community, increase climate research capacities and educational opportunities, support community engagement and wellbeing, divest from fossil fuels, and reduce emissions. Implementation of the recommendations outlined by the CETF Report is ongoing, and the regularly updated progress UBC has achieved can be viewed here.

Beyond UBC, Vancouver's Climate Emergency Action Plan focuses primarily on reducing emissions from its largest sources — infrastructure and transportation — which is similar to the plans of British Columbia and Canada, utilizing strategies such as pollution pricing and clean energy regulations. Internationally, organizations including the United Nations Framework Convention on Climate Change (UNFCCC), Intergovernmental Panel on Climate Change (IPCC), and World Meteorological Organization (WMO) have prioritized collaboration across disciplines to gather and review global environmental data in order to develop benchmarks and monitor our progress to avoid climate catastrophe.

Program Approach

The climate emergency and efforts to address it with justice-based approaches are incredibly complex, but two concepts require consistent attention at every level and will be at the forefront of the Sustainability Ambassadors' training and work: **elevating diverse perspectives** and **maintaining health and wellness**.

The society and systems that colonialism, racism, sexism, and eurocentrism have produced all work to suppress diversity in perspectives and representation. Seeing humans as separate from the environment — which directly contradicts the

worldviews of many Indigenous Peoples and Global South communities (Cronon, 1996) — has encouraged hierarchies and extractive behaviors that fuel anthropogenic climate change while those who bear the greatest impacts belong to systemically suppressed IBPOC, feminist, and Queer communities. This is why we need to center a diverse range of perspectives, including those on the frontlines and those who possess traditional ecological knowledge, when developing and analyzing approaches to climate change.

The climate emergency also brings with it a need for communities and individuals to understand how to keep themselves healthy — both physically and mentally. Climate change will entail more intense and frequent heatwaves, floods, storms, wildfires, and pollution, in addition to changes in weather patterns, season durations, and temperatures (IPCC, 2021b). These changes can directly and indirectly increase peoples' risk of developing physical illness and mental health challenges (Myers & Frumkin, 2020). Given that forms of mental illness, such as climate anxiety, are more likely to impact those who have experienced the effects of climate change and those who care about environmental issues (Clayton, 2020), we need to ensure communities and individuals have the resources to protect their wellbeing.

For more information on topics discussed within this document, please visit UBC's Climate Emergency Website, Equity & Inclusion Office Website, and UBC Wellbeing Website.

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