

Building a Sustainable Campus

Riley Adams

SOCI 2270



Embraced by all UN Member States in 2015, the **2030 Agenda for Sustainable Development** offers a roadmap for global prosperity, peace, and environmental stewardship. The core **17 Sustainable Development Goals (SDGs)** are a call for action across all nations, developed and developing. It recognizes that combating climate change and conserving the environment is connected to enhancing health and education, lessening inequality and promoting economic growth to alleviate poverty and other forms of deprivation.

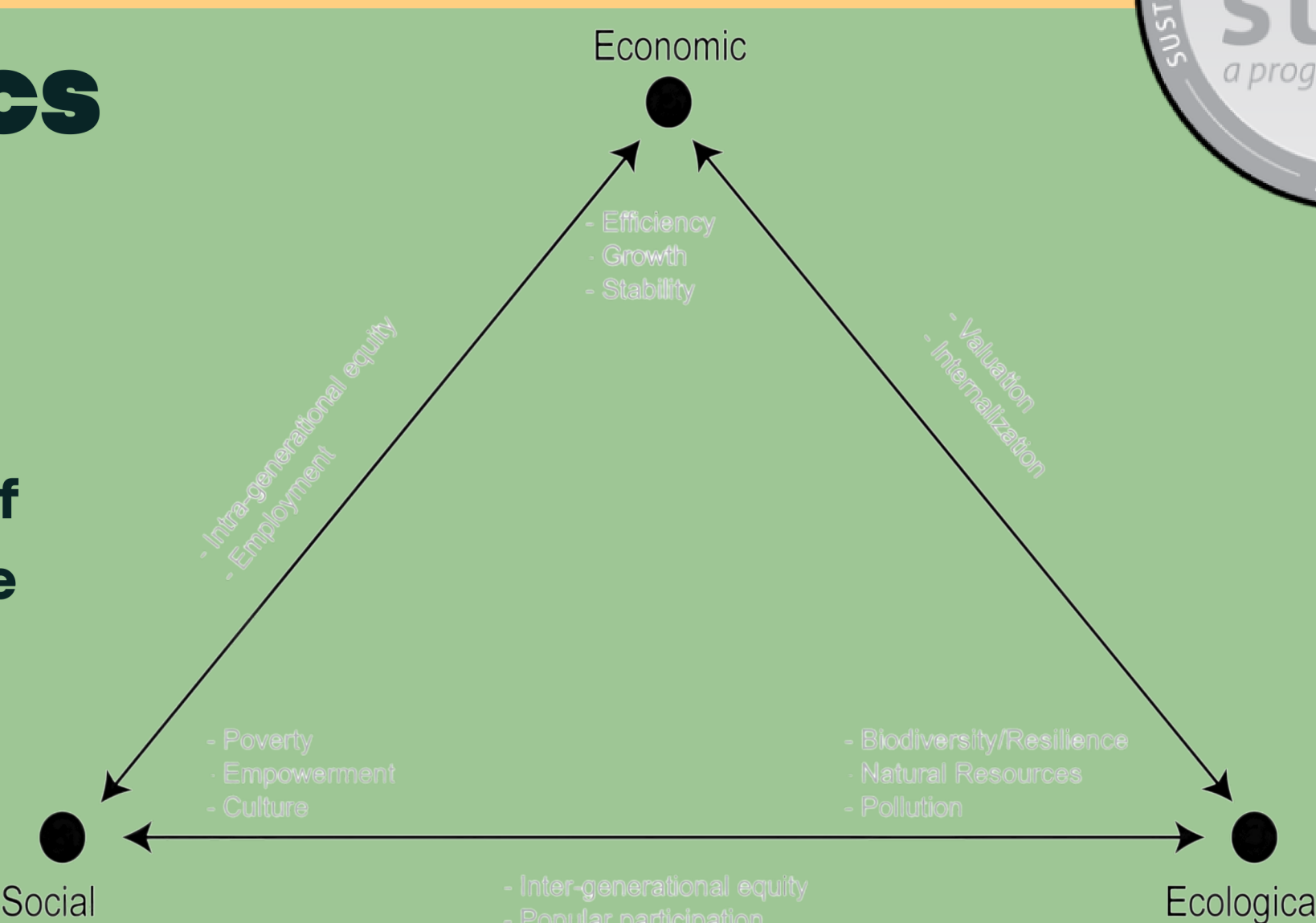
- SDGs**
- Goal 11 - Sustainable Cities & Communities**
- Goal 12 - Responsible Consumption & Production**
- Goal 13 - Climate Action**

- The college is committed to addressing global challenges and promoting sustainable development.

Let's Get To the Basics

What is Sustainable Development?

- "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987).
- Requires the integration of social, economic and environmental efforts.



What does a sustainable campus look like?

- Key Principles of a Sustainable Campus** (Bajracharya & Too, 2009).

a. **Sustainability governance framework** as well as a **formal policy or statement of commitment to sustainability**.

b. **Green funding** and investment for **flagship projects/initiatives** to reduce environmental impact and a focus on **grassroots projects**.

c. **Sustainable buildings, operations and transportation**.

d. **Sustainability education and research**.

e. **Reliable & consistent sustainability reporting**.

So What?

- Sustainable development goes beyond environmental protection; it seeks to **alleviate poverty** and **reduce inequalities** by addressing **structural barriers** and promoting **economic growth** (Rydzewski, 2021).
 - Sociology enhances sustainable development by revealing the social dimensions of environmental issues (Rydzewski, 2021).



Douglas College Sustainability policy

- Vision:** "to graduate resilient global citizens with the knowledge and skills to adapt, innovate and lead in a changing world"
- Values:** Accountability & Sustainability - responsibility to uphold financial, physical, and environmental stewardship.
- "Theme 3: Social and Environmental Responsibility":**
 - Objective 3.2 - **"contribute to sustainability goals through education, processes and practices"**.
 - Strategize towards **reducing carbon emissions, energy use and waste**.
 - Shift the **curriculum** towards **addressing environmental and social needs**.

Findings

- Douglas College - close to **25,000 students** as well as a number of international students.
- aashe STARS Program** - "Transparent, self reporting framework for colleges and universities to measure their sustainability performance."
 - Achieved a Silver ranking in sustainability (2022).
 - Score of only 2.25 out of 8.00 in Buildings Operations
 - Goal to achieve 'Gold' ranking by 2025 through initiatives:
 - High-efficiency chillers help keep the buildings cool.
 - Increase green space around campus.
 - LED lighting automatically turns off when not in use.
- Coquitlam Campus:** Envelope upgrade - **reduces energy** used for heating, cooling, ventilation and lighting by up to **325,000 Kilowatt** hours per year (**60,125 kg of CO2** emissions)
 - 5 green roofs** feature native species, representing **unique ecosystems** throughout BC.
 - Drought resistance & creates habitats** for insects and birds.
- New West Campus:** Used over **1,690 recycled jeans** to insulate walls during enrolment services renovation.
 - Reduces CO2 emissions by 53%** compared to conventional fiberglass

Headcount by Campus	
<i>The sum of Headcount by Campus will exceed Total Headcount as many students are enrolled on multiple campuses.</i>	
New West	15,526
Coquitlam	8,593
Online/Offsite	9,177

Douglas College's Role in Sustainable Development

Problem

Creating sustainable campuses requires the investigation into effective strategies fostering environmental, social and economic well-being. Balancing these dimensions poses a complex challenge, comprehensive analysis and implementation of viable solutions is necessary.

Research Question

What strategies can effectively promote environmental, social, and economic well-being within campus environments to uphold the concept of sustainability?

808 Park Royal - New West

20 STORY BUILDING TO BE COMPLETED IN 2026 - 368 STUDENT BEDS TO PROVIDE RESIDENCE AND REDUCE DEMAND ON LOCAL COMMUNITY.



- Step Code 4** on the Energy Efficiency Scale & LEED gold certification.
- Planned to have the **Zero Carbon** Certification by 2026.
 - Heated & cooled **without fossil fuels**.
- Two rooftop parks** with indigenous flora and medicinal plants.
- 30+ classrooms and a community kitchen.

Conclusion

- The practices and principles set out in Douglas College's strategic plan are aligned with the Sustainable Development Goals.
- Goal 11 Sustainable Cities & Communities** - Douglas College is growing, campus facilities must meet these demands (New West Capacity = 142%)
 - Three pillars to sustainability; Economic, ecological, and social.
- Goal 12 Responsible consumption & production** - new construction must reduce our demand for natural resources and increase green space while protecting our environment.
 - Douglas College is making retrofits to older buildings to reduce consumption.
- Goal 13 Climate Action** - the college has taken action to create unique ecosystems as well as increase biodiversity.
 - Douglas provides a variety of environmentally focused programs.
 - Using recycled materials instead of conventional products reduces our ecological footprint.
 - Rooftop parks are to be included in 808 Royal's development.

Recommendations

- 808 Royal's expansion, including over 30 additional classrooms, enables the offering of expanded applied and natural science programs.
- More opportunities for interdisciplinary collaboration.
- Integrate sustainability education across all academic disciplines.
 - It takes all of us to build a sustainable campus.