From SDGs to Climate Change

Integrating SDGs into climate change actions

*United Nations University (UNU-IAS)*

**Spring 2024**

Location: Lecture room, 6th floor in the UNU building

Time: 14:00 – 15:40

Lecturer: Dr Akio Takemoto, Dr Mahesti Okitasari, and Dr Himangana Gupta

Contact Information: atakemoto@unu.edu, okitasari@unu.edu, gupta@unu.edu

Office Hours: 9:30-17:30 (by appointment)

Course Description

A response to climate change relies on active and responsive mitigation and adaptation fitting within the context of sustainability. Limiting warming to 1.5 °C would require halving emissions by 2030 and achieving net-zero emissions by 2050. This would simultaneously require extensive sustainable development efforts that will enhance both mitigation and adaptation. On the other hand, the Sustainable Development Goals (SDGs) interconnect society's prosperity, human health, quality education, energy savings, wildlife conservation, circular economy, cities' sustainability, correct usage of natural resources, and world peace. From eradicating poverty (SDG 1) to ensuring clean water and sanitation (SDG 6), building sustainable cities and communities (SDG 11), and preserving life below water and on land (SDGs 14 and 15), most SDGs are intertwined with the urgent need to address climate change. Synergizing SDG and climate actions can become a valuable tool to mitigate and adapt to climate change not only until 2030 but can sow the seeds of transformation for the rest of the 21st century.

Climate action and SDGs are inherently interconnected, reflecting a shared commitment to global well-being. The synergy lies in recognizing that climate action is not isolated and is integral to a broader sustainable development agenda. This symbiotic relationship emphasizes the importance of integrated efforts in overcoming three key inertias that still hinder progress: the siloed nature of actions on development and climate change, the lack of comprehensive strategy that considers both synergies and trade-offs and investment gaps.

Just transition, participatory approaches, and inclusivity at all levels are key in delivering synergistic climate-SDG actions. Implementing mitigation and adaptation strategies calls for a variety of technical and policy solutions across sectors and levels. Simultaneously, placing greater emphasis on non-climate or developmental co-benefits can increase support for climate action measures. Focused efforts on synergies alone risks undermining justice as a core value and leaving vulnerable groups and regions often linked to less synergistic targets behind. Across technical and policy solutions, design, implementation and evaluation, understanding the distributional effects of climate actions and SDG co-benefits are essential to bridging the
development-climate silos, designing comprehensive policies and financing actions that leave no one behind.

**Course Objectives and Learning Goals**

This course aims to explore the knowledge and synergy solutions to deliver climate change actions and multiple SDGs in a just and equitable transition. The course overviews the synergies between the international policy framework on climate change and the 2030 Agenda for Sustainable Development. Second, it examines the social, economic, and environmental challenges and synergies associated to climate change mitigation, adaptation, and SDGs co-benefits from just transition lens at the national and local levels. The synergies extend to various areas of transition, such as energy, critical minerals, cities, food security, biodiversity, health, and gender. In contrast, inequity, energy poverty, job loss, biodiversity degradation, and food insecurity have emerged as trade-offs. Third, the course provides an opportunity to understand how distributional effects of climate actions and SDGs co-benefits are essential to designing comprehensive policies that leave no one behind and can sustainably transform society by enhancing synergies and reducing trade-offs with socio-economic impacts. The course is comprised of three components as follows:

**Component 1:** Giving an overview of the synergies, policy framework, and just and sustainable pathways on climate change and the 2030 Agenda for Sustainable Development: What are the synergies between addressing climate change and achieving the SDGs, whereby advancements in one can lead to improvements in the others? What are the opportunities from the existing climate change and SDG policy frameworks and actions that can be leveraged to create and deliver synergies? How can justice and leaving no one behind principles be detrimental in achieving synergistic targets?

**Component 2:** Exploring just transition implications of the means and pathways by which climate and SDG actions are delivered across sectors and synergistic targets are achieved: How do cross-cutting actions leverage immediate synergies and co-benefits across targets but also risk a disproportionately impacted by failure to achieve other SDGs and climate goals? How can just transition pathways be leveraged to enhance synergies and reduce trade-offs between climate change actions and social, economic, and environmental impacts? What are the mechanisms, governance arrangements, and policies that can facilitate or impede the diverse interests to support transitions that are efficient, sustainable, and equitable?

**Component 3:** Synergizing finance to deliver climate change actions that have co-benefits on the SDGs: How can finance mechanisms and tools be designed to enhance synergies between climate change mitigation, adaptation, and SDG co-benefits?

**Requirements and Grading Policy**

- **Class participation (10%)**
- **Short report (20%)**
- **Class presentation (30%)**
- **Research paper (40%)**

**Class Participation**

The course requires students to attend all classes, to arrive on time, to complete the readings and to participate actively in class discussions. This means speaking during each and every class. At the discretion of the instructor, frequent late arrivals or absences may result in a lower grade.
Assignment 1: Short Report

To develop a thorough understanding of the unique contexts, constraints, and priorities of the country that the students will pick, they will be asked to write a short report covering selected climate and SDG measures relevant to achieving the Paris Agreement and SDGs, associated transition issues, and potential co-benefits of synergistic actions in their selected country. Quality visualizations such as charts and graphs are strongly encouraged. Students are expected to revise the assignments based on instructors and classmates’ feedback for their research paper.

Format:
- Arial 12, 1.5 space, justified alignment, double side, references (in-text citation and bibliography can include both reports and academic articles)
- Harvard referencing style
- Maximum of 2,000 words (excluding references)

Submission deadline of the Assignment 1: Tuesday, June 11th, 2024

Assignment 2: Class Presentation

In order to encourage a critical engagement with the literature, to practice students’ presentation skills and to stimulate class discussion, each student will present on their short-written assignment for no more than ten minutes. The presentations will include proposals for actions to synergize climate change and SDG measures in a just and equitable transition in the selected country.

Assignment 3: Research Paper

The research paper should be a synthesis of the pre-existing assignments providing an overview of climate and SDG measures, associated transition challenges, and potential co-benefits of synergistic actions in the selected country. It must cover relevant Sustainable Development Goals for the country and provide an overview of interventions taken by the government and non-state actors to address trade-offs and enhance synergies between climate change mitigation/adaptation actions and SDG measures, to create socioeconomic co-benefits in a just and equitable transition in the country. Also, propose what research is needed to understand the problems related to leveraging just transition and delivering climate/SDG co-benefits.

Format:
- Arial 12, 1.5 space, justified alignment, double side, references (in-text citation and bibliography can include both reports and academic articles)
- Harvard referencing style
- Maximum of 3,500 words (excluding references)

Submission deadline of the Assignment 3: Sunday, July 21st, 2024

Course Outline

<table>
<thead>
<tr>
<th>Lecture No.</th>
<th>Framework</th>
<th>Title</th>
<th>Date</th>
<th>Instructors/Invited Speakers if any</th>
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|   | Overview | Introduction to the course - Broad perspective on the synergies between climate change and SDGs: Action, timelines, and implementation | Tuesday, April 2, 2024 ~ 14:00-15:40 | Dr. Akio Takemoto  
Dr Himangana Gupta |
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<td>2</td>
<td>An overview of the 2030 Agenda for Sustainable Development</td>
<td></td>
<td>Tuesday, April 9, 2024 ~ 14:00-15:40</td>
<td>Dr Mahesti Okitasari</td>
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| 3 | Just transition in energy sector |                                                                                                                                 | Tuesday, April 16, 2024 ~ 14:00-15:40 | Dr Akio Takemoto  
and Dr Mark McCarthy Akrofi |
| 4 | Just transition in food system |                                                                                                                                 | Tuesday, April 23, 2024 ~ 14:00-15:40 | Dr Eric Herve H Ponthieu  
and Dr Akio Takemoto |
| 5 | Climate change and sustainable energy (Affordable and clean energy) |                                                                                                                                 | Tuesday, April 30, 2024 ~ 14:00-15:40 | Dr. Masachika Suzuki |
| 6 | Just transition, inclusive development, and leaving no one behind |                                                                                                                                 | Tuesday, May 7, 2024 ~ 14:00-15:40 | Dr Mahesti Okitasari |
| 7 | Sustainable consumption and production and circular economy: Critical Minerals |                                                                                                                                 | Tuesday, May 14, 2024 ~ 14:00-15:40 | Dr Upalat Korwatanasakul & Dr Akio Takemoto |
| 8 | Gender, SDGs, and climate change |                                                                                                                                 | Tuesday, May 21, 2024 ~ 14:00-15:40 | Dr Himangana Gupta |
| 9 | Climate change and green-blue cities |                                                                                                                                 | Tuesday, May 28, 2024 ~ 14:00-15:40 | Dr Juan Pastor Ivars |
| 10 | Biodiversity, food security, and climate change |                                                                                                                                 | Tuesday, June 4, 2024 ~ 14:00-15:40 | Dr Himangana Gupta |
| 11 | Biodiversity, health, and sustainability nexus in the context of climate resilience |                                                                                                                                 | Tuesday, June 11, 2024 ~ 14:00-15:40 | Dr. Maiko Nishi |
| 12 | Integrated finance: SDG budgeting and integrated national financing framework (INFF) |                                                                                                                                 | Tuesday, June 18, 2024 ~ 14:00-15:40 | Dr Mahesti Okitasari |
| 13 | Subnational finance for sustainable development |                                                                                                                                 | Wednesday, June 26, 2024 ~ 14:00-15:40 | Dr Kanako Morita |
| 14 | Assignment 2: Class presentations – Group 1 |                                                                                                                                 | Tuesday, July 2, 2024 ~ 14:00-15:40 | Dr Akio Takemoto,  
Dr Himangana Gupta |
| 15 | Assignment 2: Class presentations – Group 2 |                                                                                                                                 | Tuesday, July 9, 2024 ~ 14:00-15:40 | Dr Akio Takemoto,  
Dr Himangana Gupta |
## Course Readings

*Students are expected to actively contribute to class discussions based on the material provided. The lecturer reserves the right to update the reading list throughout the course and will alert students to the changes in class.*

### Course Readings by each Lecture

<table>
<thead>
<tr>
<th>Lecture No.</th>
<th>Recommended Readings</th>
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<tr>
<td>1</td>
<td>Introduction to the course – Broad perspective on the synergies between climate change and SDGs: Action, timelines and implementation: This lecture provides an understanding of how the climate goals are broadly linked to SDGs. It discusses the need for achieving synergies, through both national and global strategies. It talks about horizontal and vertical levels of governance and streamlining finance to achieve synergy between multiple goals.</td>
</tr>
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</table>
|             | • Governance and National Implementation of the 2030 Agenda: Lessons from Voluntary National Reviews, UNU-IAS Policy brief No18, 2019  
| 2           | An overview of the 2030 Agenda for Sustainable Development: This lecture provides an overview of the 2030 Agenda for Sustainable Development processes at the global, regional, national and local level. It discusses the governance and policymaking aspects of implementing, monitoring and following up the SDGs, simultaneously looking at how countries are progressing in their efforts to localize the SDGs. It looks at how these SDG processes connect to other international frameworks with emphasis on climate actions, their synergies and interactions. The lecture also offers examples of emerging research and approaches towards governing the SDGs. |

3 Just transition in energy sector: This lecture covers the issues of just transition specifically in the energy sector.


4 Just transition in food system: This lecture provides the issues of just transition specifically in the food system. It will feature the Farm to Folk Strategy by EU which aims to make food systems fair, healthy and environmentally-friendly.


5 Climate change and sustainable energy (Affordable and clean energy): This lecture discusses the needs for sustainable energy in the context of climate change, focusing on population growth, rising emissions, GDP per capita, and GHG pathways. It presents how sustainable energy technologies, including solar energy, wind energy and achieving
higher efficiency in conventional technologies, can help in climate mitigation. It also takes about sustainable development benefits through the introduction of such technologies.

- **Suzuki, M. (2015).** Identifying roles of international institutions in clean energy technology innovation and diffusion in the developing countries: Matching barriers with roles of the institutions. Journal of Cleaner Production, 98, 229–240. https://doi.org/10.1016/j.jclepro.2014.08.070

### Just transition, inclusive development, and leaving no one behind

This lecture elaborates on the concepts of just transition, inclusive development, and leaving no one behind in the context of climate-SDG synergies and low-carbon economy. The discussion covers what just transition means for different economies (e.g., middle income countries) and the work program on just transition pathways and its intersectionality in selected key areas for implementation, e.g., national strategies and priorities, international cooperation.


### Sustainable Consumption and Production and Circular economy: Critical Minerals

- **What are ‘critical minerals’ and what is their significance for climate change action?** https://www.lse.ac.uk/granthaminstitute/explainers/what-are-critical-minerals-and-what-is-their-significance-for-climate-change-action/
- **Environmental aspects of critical minerals in Africa in the clean energy transition (UNEP).** https://wedocs.unep.org/bitstream/handle/20.500.11822/43012/minerals_africa.pdf?sequence=3&isAllowed=y
- **Critical Mineral Mining and Sustainable Development in Africa.** https://repository.mines.edu/bitstream/handle/11124/176553/Payne-Institute-
|---|

Gender, SDGs, and Climate change: As the role of women engagement in climate negotiations become important, this lecture sheds light on current situation at the grassroot level, and how climate change enhances gender inequality. In addition to presenting some case studies showing disproportionate impacts, it shows research trends on this topic, presenting solutions for their engagement, including through empowerment, policy coherence, technology and awareness, and through multi-stakeholder engagement.

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<tr>
<td>Dimensions and examples of the gender-differentiated impacts of climate change, the role of women as agents of change and opportunities for women. Synthesis report by the secretariat (2022): <a href="https://unfccc.int/documents/494455">https://unfccc.int/documents/494455</a></td>
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Climate change and green-blue cities: The benefits of a green and blue infrastructure will be introduced, in concrete when mitigating and adapting to climate change. The case of Kanazawa city will be explained.


Biodiversity, food security, and climate change: This lecture discusses the climate-biodiversity-food nexus in terms of policy interlinkages, drivers and impacts, carbon offsets and various sub-nexuses linked to SDGs. It discusses case studies highlighting nature-based solutions on-the-ground that can effectively address climate, food, and biodiversity objectives, while contributing to SDGs holistically.

- UNFCCC COP 21 decision on alternative policy approaches: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/sbsta_42_agenda_item_4_alternative_policy_approaches_a9v_template.pdf


11 Biodiversity, health and sustainability nexus in the context of climate resilience: This lecture contextualizes the nexus approach to landscape and seascape management in the era of climate crisis. It introduces the theoretical and methodological development concerning biodiversity, health, and sustainability nexus. It also discusses several cases of landscape and seascape management where nexus approaches are practiced in enhancing both ecosystem and human health while ensuring climate resilience.


12 Integrated finance: SDG budgeting and integrated national financing framework (INFF): This lecture discusses the funding gap and disjointed approach challenges to climate and SDG finance, and initiatives towards an integrated approach at the global-national levels. It covers SDG budgeting, INFF, and strategies at policy level (e.g., role of LT-LEDS) and project level (e.g., JETP) to synergise climate-SDG finance.


13 Subnational finance for sustainable development: This lecture covers two aspects of sustainable finance for sustainable development by using some cases. One is sustainable finance regarding financial stability, and another is exploring effective ways to achieve sustainable development (Ferri and Acosta, 2019).
Important Information

Class Conduct & Etiquette

Students are expected to arrive on time and not to engage in disruptive behavior during class. This includes, among other things, private side conversations, the use of mobile phones and other electronic devices, or the reading of newspapers. Mobile phones should be switched off and stored in the bag. We wish to create an atmosphere of open and tolerant discussion in the classroom and request students to recognize every individual’s right to have an opinion. The lecturer and other students should be treated with dignity and respect, particularly in discussions on contentious political issues where a diversity of opinion will likely arise. However, we also recognize that there are limits to tolerance and the lecturer reserves the right to request disciplinary action against any student who violates this policy or repeatedly shows disruptive behavior in class.

Computer Use in Class

The use of computers (including tablets) in the classroom is restricted to taking notes, reading the course material or searching for course-related information on the internet. Any disruption of the class by cell phones, instant messaging programs or other communication devices will not be tolerated. The lecturer reserves the right to revoke this permission if a student is found using a computer for any non-course related activities.

Plagiarism & Academic Misconduct

Please be aware that the consequences of plagiarism are severe, and students found guilty of academic misconduct will be punished in accordance with UNU’s academic honesty policies. The lecturer reserves the right to run all assignments through an anti-plagiarism software provided by the UNU. If evidence of academic misconduct on the assigned presentations, the mid-term exam or the final essay should be found, the assignment will receive a failing grade. In case of repeated violations of academic conduct, the student may receive a failing grade for the entire course and will be reported to the appropriate authorities for disciplinary action.
Invited Speakers/Lecturers Bio

Eric Ponthieu (Lecture 3)
Strategy Director of the Fair Trade Advocacy Office (FTAO), Adjunct Professor at Bologna and Firenze Universities, and Associate Lecturer at Ca’Foscari University

Eric Ponthieu holds 28-year professional experience in EU sustainable development policy- and decision-making, communication, R&D and teaching. He has wide range of interrelated areas of expertise including sustainable development, environment, climate, food and agriculture, sustainable consumption, energy, transport, information society, urban sustainability, R&D and innovation. He is the author of a book on climate governance (Springer, October 2020) and holds a vast teaching experience including as Associate lecturer at Ca’Foscari university and regular Visiting Professor (more than 15 universities as hosts since 2006)