

# Enhanced climate action through high integrity carbon markets

## Practicum on the implementation of the Paris Agreement Article 6

United Nations University (UNU-IAS)

**October 1st 2024 – February 4th 2025**

Location: [Lecture room, 6<sup>th</sup> floor in the UNU building<sup>1</sup>](#)

Time: 18:00-19:40

Lecturer: Dr Akio Takemoto <sup>2</sup>

Contact Information: [atakemoto@unu.edu](mailto:atakemoto@unu.edu)

Office Hours: [by appointment](#)

### Course Description

*Article 6 of the Paris Agreement is attracting much attention across various stakeholders including both public and private sector. It is seen as a key vehicle to advance actions under the Paris Agreement by enabling Parties to voluntarily cooperate each other towards achievement of their mitigation commitment pursuing higher mitigation ambition and contribution to sustainable development, and ultimately, towards achievement of the global goal of net zero emissions. Article 6 of the Paris Agreement facilitates Parties to operationalize high integrity carbon markets, which can be an effective and efficient measure to address climate change. By operationalizing carbon markets, economic incentives are created for reducing GHG emissions. Parties set out for the provision of global carbon markets which involve international transfer of mitigation outcomes accrued through the cooperation within the context of Paris Agreement. While development of rules, modalities and procedures and detailed guidance of a centralized carbon crediting mechanism under the UNFCCC is currently ongoing, some Parties already started engaging in designing, developing and operationalizing their own mechanisms based on bilateral cooperation. In the meantime, voluntary carbon markets are also evolving with private sector companies being the major source of demands for credits. At the same time, there are*

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<sup>1</sup> The course is provided in a hybrid mode where participants can access the classes remotely

<sup>2</sup> The course is delivered in collaboration with TERI School of Advanced Studies (TERI SAS) as well as the Institute for Global Environmental Strategies (IGES), the UNFCCC Secretariat, the World Bank and the Asia Development Bank (ADB).

*various initiatives deployed and/or under consideration to ensure quality of carbon credits from both supply and demand sides taking into account of the global action towards net zero emissions.*

*Based upon these backdrops, this course provides participants with comprehensive understanding on core principles and guidance, rules, modalities and procedures associated with implementing Art. 6 of the Paris Agreement as well as expertise to take a lead in developing and operationalizing carbon market mechanisms towards achievement of net zero emissions.*

## **Course Objectives and Learning Goals**

*By the end of the course, the participants should be able to explain the characteristics and trends, challenges and opportunities of implementing Article 6 of the Paris Agreement for the high integrity carbon markets and strategically lead development and operationalization of market mechanisms aligned with Art. 6 of the Paris Agreement towards achievement of net zero target.*

*The course is comprised of the four Components as follows:*

### **Component 1: Comprehensive understanding of Art. 6 within the context of UNFCCC**

- *It provides the participants strategic and comprehensive understanding on the roles of Art. 6 mechanisms under the Paris Agreement (PA) and UNFCCC. For this purpose, it elaborates trajectory of UNFCCC negotiation towards & after adoption of the PA as well as incentives, challenges and opportunities to utilize carbon market mechanisms (MMs) under the PA. In order to deepen the understanding of MMs, it looks at lessons learned from implementation of MMs under the Kyoto Protocol (KP) incl. common challenges and limitations as well as lessons learned, in particular, in use of the Clean Development Mechanism. Further, it observes differences and commonalities between KP and PA in operationalizing MMs highlighting specific requirements to be fulfilled by Parties to utilize them under the PA such as authorization, tracking and reporting as well as corresponding adjustment while contemplating their implications to the strategic use of MMs.*

### **Component 2: Core elements of implementing the Art. 6 – Authorization, Tracking and Reporting**

- *It focuses on guidance and procedures on the Art. 6 key elements of authorization, tracking and reporting under the PA. In order to deepen understanding of participants in operationalizing the Art. 6 mechanisms within the context of the UNFCCC, it also provides basic understanding on the associated requirements of enhanced transparency and GHG inventory under the PA and their linkages to the Art. 6 implementation. It is composed of theoretical lectures and hands-on trainings by using demonstration tools for each element of authorization, tracking and reporting. Participants will experience the entire procedures of these elements through scenarios and role plays among the class.*

### **Component 3: Policy and regulatory framework of various market mechanisms**

- *It drills down the actual cases of MMs focusing on applicable rules, modalities and procedures featuring both compliance and voluntary schemes including ongoing rule-making of Article 6.4 mechanism under the UNFCCC. It includes dialogue with scheme owners to exchange views and observe background of the various mechanisms as well as perceived opportunities and challenges in operationalizing them. To deepen the*

*understanding on the carbon market trends, it also elaborates recent initiatives to ensure the quality of carbon credits and the associated green claims such as Core Carbon Principle, VCMI Claims Code of Practice and Science Based Targets initiative. In addition, the linkages and needs of MMs to contribute for sustainable development are discussed.*

#### **Component 4 Wrap up – Operationalizing Art. 6 mechanisms with high integrity towards net zero**

- *It will wrap up the study of the course and discuss possible contribution of high integrity Art. 6 mechanisms towards achievement of global net zero emission target. It elaborates perspectives for facilitating early and steady development of Art. 6 mechanisms and identifies necessary conditions and/or requirements for scaling up of climate action through utilization of Art. 6 mechanisms.*

## **Requirements and Grading Policy**

*All students are expected to complete the required readings before each class. The course requirements also include active class participation and assignments:*

- *Class participation and discussion (30%)*
- *Assignment 1: Mid-term short report (Research proposal) (20%)*
- *Assignment 2: Analytical essay (50%)*

### *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. Please note that the first session is of particular importance and cannot be missed. Students are also strongly encouraged to regularly follow the news to keep up with international discourse and developments on climate change and in particular on the development of Article 6 mechanisms of the Paris Agreement, as these will be reflected in the class discussions. Relevant news sites and reporting archives will be shared by the instructor during the class.*

### *Assignment 1: Mid-term short report (Research proposal)*

*Participants are requested to write a research proposal providing a title, brief introduction of the context, rationale and objectives, methods and implication of the research, which will serve as the basis for the term-end report to be submitted at the end of the course. The proposal should elaborate possible roles of markets in a selected country considering strategic approaches to enhance climate action by utilizing them aligned with Article 6 of the Paris Agreement.*

*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 800 words (Excluding references and other relevant information which may be attached as an annex to the report)*

**Submission deadline of the Assignment 1: Tuesday, January 7<sup>th</sup>, 2025**

## Assignment 2: Analytical essay

Participants are requested to write a report building on the research proposal submitted for the assignment 1. They should provide an overview of strategic guidance, plan and approaches to utilize markets for enhancing climate action in a selected country touching upon possible pros and cons for utilizing such measures and also provide scenario for minimizing negative impacts and maximizing effectiveness and benefits aligned with the rules and procedures under the Article 6 of the Paris Agreement towards contributing for global action to achieve net zero emissions.

### Format:

- Arial 12, 1.5 space, justified alignment, double side, cover page, references (in-text citation and bibliography can include both reports and academic articles)
- Harvard referencing style
- Maximum of 3,500 words (Excluding references and other relevant information which may be attached as an annex to the essay)

**Submission deadline of the Assignment 3: Tuesday, February 11<sup>th</sup>, 2025**

## Course Outline

Lecture No.	Component	Title	Date	Instructors/Invited Speakers if any
1	Component 1: Comprehensive understanding of Art. 6 within the context of UNFCCC	Art. 6 within the context of UNFCCC – Part 1	Tuesday, October 1st, 2024 ~ 18:00-19:40	Dr. Akio Takemoto and TERI SAS
2		Art. 6 within the context of UNFCCC – Part 2	Tuesday, October 8th, 2024 ~ 18:00-19:40	Dr. Akio Takemoto and TERI SAS

3	Component 2: Core elements of implementing the Art. 6 – Authorization, Tracking and Reporting	Rules and procedures for operationalizing Art. 6 mechanisms – Authorization part 1	Tuesday, October 15 <sup>th</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer (ADB)
4		Rules and procedures for operationalizing Art. 6 mechanisms – Authorization part 2	Tuesday, October 22 <sup>nd</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer (ADB)
5		Rules and procedures for operationalizing Art. 6 mechanisms – Tracking part 1	Tuesday, October 29 <sup>th</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS - Mr. Harikumar Gadde (World Bank)
6		Rules and procedures for operationalizing Art. 6 mechanisms – Tracking part 2	Tuesday, November 5 <sup>th</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS - Mr. Harikumar Gadde (World Bank)
7		Rules and procedures for operationalizing Art. 6 mechanisms – Reporting part 1	Tuesday, November 26 <sup>th</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer (UNFCCC)
8		Rules and procedures for operationalizing Art. 6 mechanisms – Reporting part 2	Tuesday, December 3 <sup>rd</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer (UNFCCC)
9		Linkages between enhanced transparency framework, GHG MRV and Art. 6	Tuesday, December 10 <sup>th</sup> , 2024 ~ 18:00-19:40	Dr. Akio Takemoto, Dr. Atsushi Sato and TERI SAS

10	Component 3: Policy and regulatory framework of various market mechanisms	Compliance market mechanisms - Japan and Switzerland	Tuesday, December 17 <sup>th</sup> , 2024 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer
11		Voluntary market mechanisms – VCS and Gold standards  <b>Assignment 1: Short report due</b>	Tuesday, January 7 <sup>th</sup> , 2025 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS - Guest lecturer
12		Integrity and quality of carbon credits - Part 1 Supply side	Tuesday, January 14 <sup>th</sup> , 2025 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS - Guest lecturer
13		Integrity and quality of carbon credits - Part 2 Demand side	Tuesday, January 21 <sup>st</sup> , 2025 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS - Guest lecturer
14		Linkage between the carbon markets to sustainable development	Tuesday, January 28 <sup>th</sup> , 2025 ~ 18:00-19:40	- Dr. Akio Takemoto and TERI SAS -Guest lecturer
15	Component 4: Wrap up - Operationalizing Art. 6 mechanisms with high integrity towards net zero	Roles of carbon financing and markets towards net zero	Tuesday, February 4 <sup>th</sup> 2025 ~ 18:00-19:40	Dr. Akio Takemoto and TERI SAS

## Course Readings

*Participants are expected to actively contribute to class discussions based on the reading material provided. The lecturer reserves the right to update the reading list throughout the course and will alert participants to the changes in class. If any required readings from academic journals or e-books are added to the course, these can be accessed through the public work*

stations at the UNU library, using your UNU student login and password. Additional readings from web based content will also be included.

Component No.	Recommended Readings
1	<p>Convention, Protocol and Agreement:</p> <ul style="list-style-type: none"> <li>• UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE <a href="https://unfccc.int/resource/docs/convkp/conveng.pdf">https://unfccc.int/resource/docs/convkp/conveng.pdf</a></li> <li>• Kyoto Protocol to the United Nations Framework Convention on Climate Change <a href="https://unfccc.int/documents/2409">https://unfccc.int/documents/2409</a></li> <li>• The Paris Agreement <a href="https://unfccc.int/sites/default/files/english_paris_agreement.pdf">https://unfccc.int/sites/default/files/english_paris_agreement.pdf</a></li> <li>• Website</li> <li>• What is the United Nations Framework Convention on Climate Change? <a href="https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change">https://unfccc.int/process-and-meetings/what-is-the-united-nations-framework-convention-on-climate-change</a></li> <li>• What is the Kyoto Protocol? <a href="https://unfccc.int/kyoto_protocol">https://unfccc.int/kyoto_protocol</a></li> <li>• What is the Paris Agreement? <a href="https://unfccc.int/process-and-meetings/the-paris-agreement">https://unfccc.int/process-and-meetings/the-paris-agreement</a></li> <li>• UNFCCC – History of the Conventions <a href="https://unfccc.int/process/the-convention/history-of-the-convention#Climate-Change-in-context">https://unfccc.int/process/the-convention/history-of-the-convention#Climate-Change-in-context</a></li> </ul>

2	<p>Readings:</p> <ul style="list-style-type: none"> <li>• Lo Re, L., J. Ellis and S. Greiner (2022), "The birth of an ITMO: Authorisation under Article 6 of the Paris Agreement", OECD/IEA Climate Change Expert Group Papers, No. 2022/03, OECD Publishing, Paris, <a href="https://doi.org/10.1787/3d175652-en">https://doi.org/10.1787/3d175652-en</a>.</li> <li>• Falduto, C., J. Ellis and K. Simeonova (2021), "Understanding reporting and review under Articles 6 and 13 of the Paris Agreement", OECD/IEA Climate Change Expert Group Papers, No. 2021/04, OECD Publishing, Paris, <a href="https://doi.org/10.1787/03d6d0f9-en">https://doi.org/10.1787/03d6d0f9-en</a>.</li> <li>• Asian Development Bank (2020) Decoding Article 6 of the Paris Agreement VERSION II <a href="https://www.adb.org/sites/default/files/publication/664051/article6-paris-agreement-v2.pdf">https://www.adb.org/sites/default/files/publication/664051/article6-paris-agreement-v2.pdf</a></li> <li>• Lo Re, L. and J. Ellis (2021), "Operationalising the Article 6.4 mechanism: Options and implications of CDM activity transition and new activity registration", OECD/IEA Climate Change Expert Group Papers, No. 2021/02, OECD Publishing, Paris, <a href="https://doi.org/10.1787/08ce04ee-en">https://doi.org/10.1787/08ce04ee-en</a>.</li> </ul> <p>Manual:</p> <ul style="list-style-type: none"> <li>• UNFCCC (2022) Reference Manual for the Enhanced Transparency Framework under the Paris Agreement Understanding the enhanced transparency framework and its linkages Version 2 <a href="file:///C:/Users/naoki.torii/Downloads/v2_ETReferencemanual.pdf">file:///C:/Users/naoki.torii/Downloads/v2_ETReferencemanual.pdf</a></li> </ul> <p>Online course:</p> <ul style="list-style-type: none"> <li>• Operationalizing Article 6.2 of the Paris Agreement: Achieving ambitious climate action through cooperative approaches <a href="https://www.learningfornature.org/en/courses/operationalizing-article-6-2-of-the-paris-agreement-achieving-ambitious-climate-action-through-cooperative-approaches/">https://www.learningfornature.org/en/courses/operationalizing-article-6-2-of-the-paris-agreement-achieving-ambitious-climate-action-through-cooperative-approaches/</a></li> <li>• UNFCCC (2023) Article 6.2 Manual for the accounting, reporting and review of cooperative approaches <a href="https://unfccc.int/sites/default/files/resource/Article%206.2%20Reference%20Manual.pdf">https://unfccc.int/sites/default/files/resource/Article 6.2 Reference Manual.pdf</a></li> </ul> <p>Website</p> <ul style="list-style-type: none"> <li>• All about the NDCs <a href="https://www.un.org/en/climatechange/all-about-ndcs">https://www.un.org/en/climatechange/all-about-ndcs</a></li> <li>• Moving towards implementing an Enhanced Transparency Framework <a href="https://unfccc.int/enhanced-transparency-framework">https://unfccc.int/enhanced-transparency-framework</a></li> <li>• FAQs of Task Force on National Greenhouse Gas Inventories - IPCC <a href="https://www.ipcc-nggip.iges.or.jp/faq/faq.html">https://www.ipcc-nggip.iges.or.jp/faq/faq.html</a></li> </ul>
3	<p>Website:</p> <ul style="list-style-type: none"> <li>• The Joint Crediting Mechanism (JCM) by the Government of Japan <a href="https://www.jcm.go.jp/">https://www.jcm.go.jp/</a></li> <li>• Bilateral climate agreements by the Federal Office for the Environment (FOEN), Switzerland <a href="https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/staatsvertraege-umsetzung-klimauebereinkommen-von-paris-artikel6.html">https://www.bafu.admin.ch/bafu/en/home/topics/climate/info-specialists/climate--international-affairs/staatsvertraege-umsetzung-klimauebereinkommen-von-paris-artikel6.html</a></li> <li>• Voluntary Carbon Markets Integrity Initiative <a href="https://vcmintegrity.org/vcmi-claims-code-of-practice/">https://vcmintegrity.org/vcmi-claims-code-of-practice/</a></li> <li>• The Core Carbon Principles <a href="https://icvcm.org/core-carbon-principles/">https://icvcm.org/core-carbon-principles/</a></li> </ul>

## Important Information

### Class Conduct & Etiquette



*Participants 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 cell-phones and other electronic devices, or the reading of newspapers. Cell-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 participants to recognize every individual's right to have an opinion. The lecturer and other participants should be treated with dignity and respect, in particular in discussions on contentious political issues where a diversity of opinion is likely to 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.*

*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 participants 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 assignments should be found, they will receive a failing grade. In case of repeated violations of academic conduct, the participants may receive a failing grade for the entire course and will be reported to the appropriate authorities for disciplinary action.*

### **Invited Speakers/Lecturers Bio**

*To be provided before the lecture*