UNITED NATIONS
ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC
STATISTICAL INSTITUTE FOR ASIA AND THE PACIFIC (SIAP)

Compiling climate change indicators: an accounting approach

(e-Learning course)

10 January-18 February 2022

Guideline

I. OVERVIEW OF THE COURSE

Climate change is one of the most pressing issues of our time. Its impacts on well-being are far reaching, including impacts on health and the economy. Humans have contributed to climate change largely through economic activities which are intrinsically linked to climate change. Our supply and use of energy for example has led to increased emissions of greenhouse gases which have resulted in global warming. A better understanding of the relationship between the economy and climate change through the compilation of relevant indicators is key to mitigating and adapting to climate change.

This course will focus on climate change indicators that can be compiled from environmental economic accounts. After a brief overview of climate change and, relevant polices and multilateral agreements, participants will learn how to compile various indicators that inform climate change. The focus of the course is on better understanding the relationship between climate change and economic activity. And the statistical framework that provides the concepts, definitions, and methodology for measuring this relationship is the System of Environmental Economic Accounting. In particular, participants will learn about physical supply and use tables for energy and air emissions, and indicators that can be compiled from these accounts. Other topics to be discussed include transaction accounts which can be used to derived expenditure type indicators such those on taxes on energy and pollution. Further details on course content follow below.

II. TARGET PARTICIPANTS

The target audience are officials in national statistical offices, line ministries (especially ministries of energy, natural resources and environment) and other institutions who are working on climate change related issues. The course can also be useful to a wider audience who is interested to learn more about climate change. Please note that UN SIAP conducted the same course in early 2021; participants from the 2021 course are welcomed to join this course as a review of the topic.

III. LEARNING OUTCOMES

By the end of the course, participants will be expected to:

- learn about climate change and relevant policy initiatives
- learn about indicators that inform climate change
- understand how the compilation of energy, air emission and other accounts can be used to compile climate change indicators

- understand the differences between air emission inventories and accounts.

IV. COURSE DESIGN AND CONTENT

Each module consists of slides with explanations. After all modules have been completed, participants will be required to complete a final test that will cover all modules. The modules are expected to take a maximum of 6 hours to complete. Participants are also expected to attend weekly webinars and the "Joint EFTA/UNECE Webinars on Climate Change-related Statistics" (19-20 January 2022). The webinars will provide an overview of the course topics and allow for participants to ask questions; more details will be provided at the beginning of the course. Furthermore, participants are encouraged to actively participate in the online forum of the course. Topics for discussion will be posted on a regular basis and participants are invited to share their views/comments/questions.

Outline

Module	Coverage
1. Demand for Climate Change Indicators - the Policy Context	• Climate Change and Driving Forces-Pressures-State-Impact-Response (DPSIR) Framework • The global policy context • Climate change policies and indicators • Summary and outlook
2. **Introduction to SEEA Central Framework and Energy Accounts**	• System of Environmental Economic Accounting (SEEA) • SEEA-Energy • Energy related climate change indicators
3. **Air Emission Accounts - Introduction and compilation**	• Air Emissions • System of Environmental Economic Accounting: Air emission accounts • Compiling air emission accounts
4. **Air Emission Accounts – Indicators and bridge tables**	• Air emission accounts • Relationship between inventories and accounts • Air emission related indicators
5. Land, water and other accounts	• Introduction • SEEA land accounts • SEEA water accounts • Transactions accounting
6. **Realizing a national indicator set**	• The 8 steps to realize a national indicator set • Summary

V. EVALUATION

Participants must receive a 70% or higher in the test at the end of this course.

Participants will be given 60 minutes to complete the test. They may take the exam up to three times and retain their best score. Participants may not work together on the test. The course facilitator reserves the right to deny course certificates to participants suspected of cheating on the test. The supervisor is expected to ensure that the test of the course is taken in his/her presence.

VI. FOLLOW-UP PHASE

Following the completion of the training and depending on resource availability, in-kind support will be made available to countries interested in compiling climate change indicators discussed in the course. Further details on the follow-up phase will be provided during the course.

VII. SOURCE MATERIAL

This course draws upon various sources, including international statistical standards and case studies from national statistical offices.