# Green Fiscal Reform E-Learning Course

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Many governments face the triple challenge of reducing environmental risks, while fostering economic growth and reducing poverty. Green fiscal reform (GFR) as a policy approach can improve fiscal consolidation, spur innovation, and help identify smarter ways for government taxation and spending. By setting appropriate economic incentives and price signals green fiscal policies can help shift consumption patterns and drive private investments in human, natural, social and clean-produced capital. For example, fossil fuel subsidies amount globally to 548 billion USD (IEA, 2013) and their reduction would unlock funding for investments in clean industries, renewable energy, and poverty reduction.

The key role of fiscal instruments for advancing sustainable development is paramount in all the three documents that will shape the development agenda until 2030, including the sustainable development goals (SDG), the Addis Ababa Action Agenda on Financing for Development (AAAA), and the agreement to be reached at the climate negotiations in Paris (COP 21, December, 2015).

SDG 17, for example, contains a specific target aimed to “Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection”, while SDG 7, SDG 8, SDG 9, and SDG 12 emphasize the need to create a policy environment which corrects market defects, spurs innovation in a number of economic sectors, and enable access to finance for small and medium-sized enterprises(1).

The main instruments in the green fiscal policy toolbox include environmental taxes and charges, as well as subsidy reform. Other measures, which bear implications to countries’ revenue generation and spending, include tradable permit schemes, public procurement, and financial instruments to leverage private funding.

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1. For more information on the 2030 Development Agenda, see: www.un.org/sustainabledevelopment

GREEN FISCAL REFORM (GFR) CAN IMPROVE FISCAL CONSOLIDATION. SPUR INNOVATION. AND HELP IDENTIFY SMARTER WAYS FOR GOVERNMENT TAXATION AND SPENDING.
The design, implementation, and monitoring of green fiscal instruments pose various challenges to policymakers. A major political concern is the fact that fiscal reforms are often unpopular among stakeholders given perceived social and economic risks (e.g., impact on income distribution or industry competitiveness). The choice among the different instruments should be guided by a rigorous assessment of risks as well as of various social and poverty-related implications. Improving national capacities can help support countries in the understanding, implementation and effective use of green fiscal instruments to advance green economy objectives.

To meet the learning needs and build capacities of national stakeholders, Partnership for Action on Green Economy (PAGE) has developed this e-learning course on green fiscal reform (GFR). The interactive and practice-oriented course seeks to provide interested participants from government, business, civil society and academia with an introduction to various approaches and policy instruments for reforming government spending and revenue generation with the goal of supporting the transition to a green economy.

The course seeks to explain the basic concepts of GFR focusing on case studies and existing reform initiatives from around the world. The learning materials for the course draw largely upon publications by UNEP (2011, 2010, 2009), as well as other bodies, such as the International Monetary Fund (2014, 2012) and the World Bank (2005). In addition, it makes reference to technical guides and manuals suitable for participants working on/interested in the level of technical implementation of fiscal policies.

2 TARGET GROUPS

The course targets groups and individuals who are interested in obtaining a solid understanding of green fiscal reform and relevant policy instruments to implement it.

The target group includes:

- Civil servants in national and sub-national departments and agencies, e.g., ministries of finance, economic development, environment, energy and/or environmental protection
- Agencies, as well as public service providers
- Development partners in international cooperation
- Staff of civil society organizations and private associations
- Sector specialists in energy, forestry, fisheries etc.
- Faculty, researchers and students
Overall Learning Objectives

Participants will learn about different concepts and instruments of green fiscal reform. This encompasses challenges and opportunities associated with various approaches to reforming government spending and revenue generation. Additionally, participants will begin to develop basic skills for applying fiscal measures into a real-world context. After completing the course, participants will be able to:

- Define the concept of green fiscal reform and explain its value for a green transition
- Distinguish relevant policy instruments for correcting market failure and reforming economic incentives
- Discuss governance and policy processes, including associated risks and impacts, in relation to effective reform strategies
- Indicate key sectors with high potential for green fiscal reform
- Apply the green fiscal reform concept to a real-world context

Course Structure and Content

The course is composed of 5 modules. Each course module has specific learning objectives. The modules cover the following topics:

<table>
<thead>
<tr>
<th>Module</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>Preparatory module</td>
<td>Excursion to Fiscal Policy and the National Budgeting Process</td>
</tr>
<tr>
<td>Module 1</td>
<td>Introduction to Green Fiscal Reform: Policy Context, Rationale and Related Concepts</td>
</tr>
<tr>
<td>Module 2</td>
<td>Fiscal Instruments for Greening the Economy</td>
</tr>
<tr>
<td>Module 3</td>
<td>Policy Design and Implementation of Fiscal Reform Strategies</td>
</tr>
<tr>
<td>Module 4</td>
<td>Applying Green Fiscal Reform in Key Sectors</td>
</tr>
<tr>
<td>Module 5</td>
<td>International Developments and Initiatives Supporting Green Fiscal Reform</td>
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</tbody>
</table>
PREPARATORY MODULE – (Optional)

Given the learners’ diverse backgrounds and complexity of the issue at hand, the course features an optional Preparatory Module “Excursion to Fiscal Policy and the National Budgeting Process”.

The purpose of this session is to enhance the learning experience by providing a brief introduction to the main functions of fiscal policy and the national budgeting process. Understanding these subjects is essential for grasping the full scope of objectives and instruments that green fiscal reform is concerned with. However, if learners already dispose of sufficient knowledge on these issues; they may proceed directly to Module 1.

MODULE 1 – Introduction to Green Fiscal Reform: Policy Context, Rationale and Related Concepts

Module 1 describes the general policy context of green fiscal reform.

- **Lesson 1**
  outlines current economic, environmental and social challenges stemming from environmental externalities, inefficient pricing signals, and unsustainable use of public finance.

- **Lesson 2**
  discusses major international developments related to fiscal policy, as well as how fiscal reform can support the new 2030 Development Agenda.

- **Lesson 3**
  provides definition and a rationale for green fiscal reform, and the various benefits associated with it.

- **Lesson 4**
  highlights key concepts and potential trade-offs related to green fiscal report.

**After completing the module, participants will be able to:**
- Outline trends and developments that give rise to widened interest in green fiscal reform issues
- Define the rationale for fiscal interventions aimed at greening the economy
- Discuss possible impacts of green fiscal reform
- Describe the nature of trade-offs among fiscal, social and environmental goals
- Provide definition for key concepts related to green fiscal reform
Module 2 - Fiscal Instruments for Greening the Economy

Module 2 provides an overview of the main fiscal instruments that can be used to change economic incentives and price signals, with a focus on practical examples from key sectors.

Lesson 1 outlines how taxes, charges and fees can be used to tackle environmental externalities, foster innovation and green industries, or encourage green behaviour.

Lesson 2 addresses the role of subsidies and subsidy reforms, especially in the context of the energy sector.

Lesson 3 covers fiscal and wider market-based instruments, which set incentives for private sector to green its activities in collaboration with the state. Approaches discussed here include tradable permit systems, sustainable public procurement, and use of public finance to leverage private investments (e.g. in the context of green infrastructural development).

After completing the module, participants will be able to:
- List various fiscal instruments to address market failures
- Discuss how environmental taxes and fees can effectively support transition to a green economy
- Outline how subsidy reform can advance low-carbon development and improve public finance
- Depict market instruments based on collaboration between the state and private sector
- Provide examples of how green fiscal reform measures can be applied in practice

Module 3 - Policy Design and Implementation of Effective Reform Strategies

Module 3 discusses various factors to consider when designing fiscal policies and makes recommendations for formulating effective reform strategies. This module is organized along the stages of the policy cycle, with particular emphasis placed on the political economy of fiscal interventions.

Lesson 1 introduces the agenda-setting stage with a view on various contextual factors to consider before initiating reform.

Lesson 2 focuses on the policy options stage that assesses fiscal measures and the challenge of balancing trade-offs between objectives.

Lesson 3 explores the decision-making stage, key stakeholders and their differing interests in the process of green fiscal reform.

Lesson 4 centers on the implementation stage covering the need for strategies to mitigate political opposition.

Lesson 5 concludes the policy cycle with the monitoring and evaluation stage outlining indicators to follow progress, as well as possible knowledge gaps hindering effective fiscal reform.

After completing the module, participants will be able to:
- Depict a sequence of relevant green fiscal reform stages (policy cycle)
- Indicate approaches for assessing and managing trade-offs associated with green fiscal reform
- Identify key stakeholders and their interests in reform or status quo
- Discuss strategies to mitigate major risks related to the implementation of fiscal reforms
- Discuss the role of indicators and monitoring systems for effective reform
Lesson 1 deals with reforming the energy sector and the need to foster production and use of clean energy.

Lesson 2 discusses how the demand for sustainable transportation can be positively influenced with the help of fiscal instruments.

Lesson 3 highlights approaches to reduce pollution and waste stemming from industrial activities.

Lesson 4 provides examples of how sectors based on the use of natural resources, i.e. agriculture, water, forestry, and fisheries, can be greened, for example through reforming market-distorting incentives.

After completing the module, participants will be able to:
- List key economic sectors with significant potential benefits from fiscal measures
- Distinguish specific sectoral challenges and opportunities
- Indicate sectoral options for fiscal intervention
- Provide examples of successful green fiscal initiatives in the discussed economic sectors

Module 5 identifies international developments and efforts to advance green fiscal reform.

Lesson 1 places green fiscal policy within current international developments, such as the post-2015 Development Agenda and the Sustainable Development Goals debate.

Lesson 2 presents in more detail international initiatives and networks that support researchers and policymakers around the globe in the design and implementation of green fiscal policies.

After completing the module, participants will be able to:
- Explain how green fiscal reform can advance the new 2030 Development Agenda
- Discuss selected Sustainable Development Goals and targets that can be advanced through green fiscal reform.
- Identify ongoing international initiatives pertinent to the area of green fiscal reform.
- Discuss how collaboration on international or regional level can support national policy reform.
The course pedagogy is adapted for professionals engaged in full-time work.

Participants are provided with the opportunity to learn through various experiences: absorb (read); do (activity); interact (socialize); and reflect (relate to one’s own reality).

To support this learning, the course features a number of learning activities and experiences that include exercises, discussion fora, and experiential learning. In support of the interactive elements of the course, essential background reading in the form of learning journals is provided.

The course features the following instructional elements:

**Video presentations**
Each module starts with a short video (about 2-3 minutes) where a Green Fiscal Reform expert discusses the subject at hand and highlights the main knowledge points the module will elaborate on. The video presentations set the focus for the week and direct participants’ attention to the instructional materials.

**Animated modules**
The animated modules serve to structure upfront the content of the respective module by guiding the learner through the module’s learning objectives and highlighting key messages. It presents the content of the learning journal in a concise and user-friendly form, while giving the opportunity to test one’s knowledge and reflect on key concepts.

**Learning journals**
Each week, a learning journal is made available to participants through the online learning platform. The journals summarize the core course content from a range of documents and feature a body of knowledge directly responding to the learning objectives in an interactive and learner-friendly browser-style format. They are available in a downloadable PDF version to allow offline learning.

Additional resources and reading materials are offered to help participants deepen their understanding of specific issues depending on their particular needs and interests. Complementary glossaries provide definitions of relevant concepts and technical terms for each module.

**Exercises**
Within each module, participants have the option to take part in practical exercises. The exercises allow to both test and improve knowledge on the spot in an interactive way.

**Discussion Fora**
Each week, the course facilitator will initiate a discussion in a designated discussion space to foster interaction and reflection on specific issues linked to the module topic and objectives. Participants are also encouraged to initiate discussion threads themselves. Contributions are directly posted in an online forum where they are available to all learners.
Assessment tests
At the end of each module, participants take an assessment test that corresponds to the learning objectives for the module.

The test appraises the comprehension of key facts and concepts discussed in the module. Successful completion of 4 out of 5 tests is a necessary requirement for completion of the course.

Applied Case Study and Peer-Review
The case study requires the development of an individual Action Plan that applies the green fiscal reform concept to an existing situation in a specific country, region, city or sector. In developing an Action Plan, participants are encouraged to take into account the learning materials provided throughout the course.

While preparing the case study, participants identify a concrete problem context and relevant issues, and define appropriate measures, resources and means of implementation.

Each participant peer-reviews two Action Plans submitted by other participants. To ensure that their Action Plan receives a peer-review, it is important that participants meet the deadlines for this course component.

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**Study Plan and Workload**

**Course sequence**

Each week, participants will have access to a new module. Once available, modules will remain accessible until the end of the course.

Before moving from one module to another, participants are advised to complete the mandatory readings (i.e. the learning journals) and take the assessment test. It is recommended that participants complete all the mandatory and facultative learning activities related to one module over a one week’s period.

The last week (wrap-up week) of the course will allow participants to review the course and make final revision to their applied case study based on the peer-reviews.

**Learning Hours**

The total number of learning hours is 32 over an 8 week period. The average amount of work expected for the completion of the course is 4 - 5 hours a week during the first 5 weeks. The completion of course assignments during weeks 6 - 8 will require an additional 8 - 10 hours of work.

**Overview of Study Plan**

During weeks 1-5 the study of learning journals is complemented by a range of learning activities and experiences such as discussion forums, and interactive exercises.

During weeks 4-7 learners work on their applied cases studies and peer review two case studies produced by fellow participants.

Week 8 is reserved for wrap-up, final revisions to the case studies in view of peer reviews received, and completion of course assignments.

For further details, please consult the detailed study plan (page 11).
<table>
<thead>
<tr>
<th>WEEK</th>
<th>ESTIMATED TIME</th>
<th>ACTIVITY</th>
<th>ACTION REQUIRED</th>
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</thead>
<tbody>
<tr>
<td>Week 1 / Module 1</td>
<td>4 hours</td>
<td>Read Learning journal 1</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Consult complementary readings and external links</td>
<td>Facultative</td>
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<td></td>
<td></td>
<td>Take the practice exercise for Module 1</td>
<td>Facultative</td>
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<tr>
<td></td>
<td></td>
<td>Take assessment test 1</td>
<td>Mandatory</td>
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<td></td>
<td></td>
<td>Participate in forum group discussion 1</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Week 2 / Module 2</td>
<td>5 hours</td>
<td>Read Learning journal 2</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Consult complementary readings and external links</td>
<td>Facultative</td>
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<td></td>
<td>Take the practice exercise for Module 2</td>
<td>Facultative</td>
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<tr>
<td></td>
<td></td>
<td>Take assessment test 2</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Participate in forum group discussion 2</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Participate in the interactive exercise</td>
<td>Mandatory</td>
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<tr>
<td>Week 3 / Module 3</td>
<td>5 hours</td>
<td>Read Learning journal 3</td>
<td>Mandatory</td>
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<td></td>
<td></td>
<td>Consult complementary readings and external links</td>
<td>Facultative</td>
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<td>Take the practice exercise for Module 3</td>
<td>Facultative</td>
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<td></td>
<td>Participate in forum group discussion 3</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Take assessment test 3</td>
<td>Mandatory</td>
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<tr>
<td></td>
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<td>Participate in the interactive exercise</td>
<td>Mandatory</td>
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<tr>
<td>Week 4 / Module 4</td>
<td>5 hours</td>
<td>Read Learning journal 4</td>
<td>Mandatory</td>
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<td></td>
<td>Consult complementary readings and external links</td>
<td>Facultative</td>
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<td>Take the practice exercise for Module 4</td>
<td>Facultative</td>
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<td>Take assessment test 4</td>
<td>Mandatory</td>
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<td>Participate in forum group discussion 4</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Start developing the Applied Case Study</td>
<td>Mandatory</td>
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<tr>
<td>Week 5 / Module 5</td>
<td>5 hours</td>
<td>Read Learning journal 5</td>
<td>Mandatory</td>
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<td></td>
<td></td>
<td>Consult complementary readings and external links</td>
<td>Facultative</td>
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<tr>
<td></td>
<td></td>
<td>Take the practice exercise for Module 5</td>
<td>Facultative</td>
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<tr>
<td></td>
<td></td>
<td>Take assessment test 5</td>
<td>Mandatory</td>
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<tr>
<td></td>
<td></td>
<td>Participate in forum group discussion 5</td>
<td>Mandatory</td>
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<tr>
<td>Week 6 / Module 6</td>
<td>4 hours</td>
<td>Submit Applied Case Study</td>
<td>Mandatory</td>
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<tr>
<td>Week 7 / Module 7</td>
<td>8 hours</td>
<td>Submit peer review of 2 Applied Case Studies</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Week 8 / Module 8</td>
<td>1 hour</td>
<td>Complete outstanding activities and the course evaluation questionnaire</td>
<td>Facultative</td>
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</table>
LEARNING ASSESSMENTS AND COMPLETION REQUIREMENTS

Course sequence

The course features a range of activities designed to measure and evaluate learning results, including: assessment tests, interactive exercises, and development of an applied case study.

All successful participants will receive a Certificate of Completion by UNITAR. In order to receive the Certificate, participants need to:

• Pass 4 out of 5 assessment tests with result equal or higher than 70%
• Participate actively in the discussion fora
• Submit a case study of 3-5 pages, and provide 2 peer-reviews of 1 page

The Certificate of Completion will be sent out to successful participants within one month of the course ending date.

Assessment tests

For each assessment test participants will be allowed 3 attempts. In order to receive the Certificate of Completion, participants need to pass 4 out of 5 assessment tests with a score higher than 60%.

It is recommended that the assessment test is taken in conjunction with their corresponding module. However, recognizing the existence of different learning paths and the professional occupation of most participants, the assessment test will remain available online until the end of the course.

Exercises

The applied case study should be 3-5 pages long and respect the following set of characteristics:

• Address a specific issue/problem/challenge
• Have clear objectives and expected results
• Comprise specific measures/activities;
• Contribute to advancing green fiscal policy in a real world context.

In addition, each course participant should prepare 2 peer-reviews of applied case studies prepared by other participants. Peer-reviews should have a length of approximately 1 page.

All submitted case studies will receive individualized feedback from the Course Moderator within a month following the end of the course.

Overall participation

The overall participation in the discussion forums and other interactive activities will be assessed by the course moderator and the UNITAR team at the end of the course. A record of active participation is a mandatory requirement for successful completion of the course. Regular participation can also compensate insufficient performance in other activities and/or tests.
Course moderator
The course is moderated by an international expert with vast knowledge and experience in the area of green fiscal policy.

Throughout the course, learners have the opportunity to consult with the Moderator, via the forum “Questions to the Moderator”, where direct inquiries related to the content of the course can be posted.

Furthermore, the Course Moderator promotes participation and interaction among the students, by actively facilitating the discussion forums. He or she posts a question at the beginning of the week, follows the discussion and provides feedback to inputs by participants, and sums up the main viewpoints of the discussion at the end of the week.

The Course Moderator also provides feedback on regular basis to course activities and exercises. He or she monitors, evaluates and gives personalized feedback to students with regard to their applied case studies, as well as their overall performance in the course.

UNITAR Support team
UNITAR provides continuous administrative, technical, and substantive support to participants throughout the delivery of the course.

The course is methodologically supported by several UNITAR units, including Knowledge Systems Innovation, Monitoring and Evaluation, Communications, and Administrative and Finance Services.

Course evaluation
To collect participants’ views of the course, a final evaluation questionnaire is made available under the “Course Wrap-up” section of the course platform.

Completing an evaluation is mandatory for all participants and learners’ feedback and suggestions will be taken into account in view of improving future editions of the course.
Access to internet is an essential condition for participation. UNITAR also recommends the following minimum in hardware and software to take this e-Learning course:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Windows XP / Windows Vista / Windows 7; MacOSX</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>(downloadable for free at <a href="http://www.adobe.com">http://www.adobe.com</a>)</td>
</tr>
<tr>
<td>Browser</td>
<td>Internet Explorer 8 or higher, or Mozilla Firefox</td>
</tr>
</tbody>
</table>

Note: Java, cookies and pop-ups must be enabled.

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United Nations Development Programme (UNDP) and partners (2015). Towards Green and Inclusive Prosperity


Withana, S., 2015. Overcoming Obstacles to Green Fiscal Reform.


For information about the Green Fiscal Reform e-course:
Green Development and Climate Change Programme, UNITAR
International Environment House 1
Chemin des Anémones 11-13,
CH-1219 Châtelaine, Geneva - Switzerland

Email: page@unitar.org
Website: www.unitar.org/event

For general information about PAGE:
PAGE Secretariat
UNEP/Economics and Trade Branch
11-13 Chemin des Anémones
CH-1219 Châtelaine, Geneva - Switzerland

Email: page@unep.org
Website: www.un-page.org