

Restoration for Climate Adaptation Training

GEF-8 Ecosystem Restoration Program

**Instructors: Giacomo Fedele & Starry Sprenkle-Hyppolite from
Conservation International**

The course will run online (via Zoom) from September 2 to October 1, 2026, and be available afterwards [here](#).

Audience: implementers and managers of restoration projects as part of the GEF restoration program and ecosystem restoration practitioners interested in achieving climate adaptation benefits for people. Participants need to attend all modules to complete the training and obtain a certificate. No previous/basic climate adaptation experience needed.

Objectives: To provide information about:

- a) The importance of climate adaptation and the need to adapt to climate change,
- b) Nature-based Solutions for climate change adaptation of people,
- c) Ecosystem restoration as a type of NbS for climate adaptation of people,
- d) How to identify, implement and monitor restoration interventions for the climate adaptation of people
- e) The importance of implementing restoration where multiple benefits, beyond climate adaptation, can be achieved.

Participants will come out of this course with knowledge of how to:

- Use and interpret the vocabulary regarding climate change adaptation and Nature-based solutions
- Identify the need for climate adaptation within their project areas and geographies
- Identify areas where ecosystem restoration could help people adapt to climate change
- Prepare a theory of change of restoration interventions providing climate adaptation benefits
- Use metrics and indicators to assess the impacts of restoration interventions for climate adaptation
- Incorporate conflict-sensitivity driven by climate change into restoration projects
- Assess the possibility of restoration interventions to achieving benefits other than climate adaptation
- Connect with a community of practitioners engaged in meaningful incorporation of adaptation into their restoration work

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This course is a series of four, one and a half hour modules with time for presentations and guided group discussions or activities on the content. Sessions will be recorded and made available to participants to watch at other times. The trainers will also have office hours after each module. The modules are as follows:

Module 1: The importance of climate adaptation and risk analysis in a changing world

Module 2: Nature's contribution for climate adaptation

Module 3: Identification and implementation of Nature-based Solutions for climate adaptation

Module 4: Monitoring Nature-based Solutions for climate adaptation

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Module 1: The importance of climate adaptation and risk analysis in a changing world

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Live session: September 2, 2026 10-11:30 am EST /// 4-5:30 pm CET

Duration: 1.5 hours

Homework prior to taking the module: review syllabus and come with knowledge about your project and questions about adaptation

1. Overview of the training course objectives, modules
2. Short introduction to instructors and the GEF-8 Ecosystem Restoration Integrated Program
3. Differentiating Nature Based Solutions for Climate Adaptation and Mitigation
4. Assessing & Identifying Climate Risks (+ climate risk tool)
5. Q& A
6. Discussion
7. Explanation of presentation assignment for next week

Office hours for this module:

September 3, 4-5:00 am EST / 10-11:00 am CET for Giacomo

September 3, 10-11 am EST / 4-5 pm CET for Starry Sprenkle Hyppolite

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Suggested reading materials for Module 1:

Understanding the value and limits of nature-based solutions to climate change and other global challenges:

<https://royalsocietypublishing.org/rstb/article/375/1794/20190120/30543>

Nature-Based Solutions and Climate Change – Four Shades of Green:

https://link.springer.com/chapter/10.1007/978-3-319-56091-5_3#Tab4

Future-proofing ecosystem restoration through enhancing adaptive capacity

<https://www.nature.com/articles/s42003-023-04736-y>

Integrating the Grey, Green, and Blue in Cities: Nature-Based Solutions for Climate Change Adaptation and Risk Reduction:

https://link.springer.com/chapter/10.1007/978-3-319-56091-5_6

Module 2: Nature's contributions for climate adaptation

Live session: September 9, 2026 10-11:30 am EST /// 4-5:30 pm CET

Duration: 1.5 hours

Homework prior to taking the module: Participants prepare to share a 2-3 minute summary the major climate risks they face (based on the climate risk tool), the restoration activities of their projects, the benefits they provide to people, if those activities are expected to reduce the impacts of climate change. Can be verbal, or have a maximum of 2 slides.

1. Types of climate adaptation and benefits
2. Climate adaptation in the project cycle
3. Short project presentations from cohort (see above)
4. Discussion on whether the categorization provided included all types of benefits presented
5. Theory of change for ecosystem restoration and climate adaptation benefits
 - Connecting climate hazards, ecosystems, adaptation benefits to people
 - Enabling conditions for benefits to be more likely achieved
6. Q&A
7. Interactive activity / preparation for next session
 - Cohort members build a simple theory of change based on their project goals (item 7) to present at beginning of next module

Office hours for this module:

September 10, 4-5 am EST / 10-11 am CET for Giacomo

September 10, 10-11 am EST / 4-5 pm CET for Starry

Suggested reading materials for Module 2:

Guidance for using the IUCN Global Standard for Nature-based Solutions:
<https://portals.iucn.org/library/sites/library/files/documents/2020-021-En.pdf>

Theory of Change Primer from the GEF:
https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_STAP_C.57_Inf.04_Theory%20of%20Change%20Primer_0.pdf

NCP article <https://www.science.org/doi/full/10.1126/science.aap8826>
and/or Nature-dependent people: Mapping human direct use of nature for basic needs across the tropics

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Module 3: Identification and implementation of NbS for climate adaptation

Live session: September 23, 2026 **10-11:30 am EST /// 4-5:30 pm CET**

Duration: 1.5 hours

Homework prior to taking the module: come prepared to give a short presentation on the theory of change prepared based on climate risk information previously identified.

1. Short presentations from cohort on their theories of change (voluntary basis- first 5 volunteers)
2. Examples of restoration interventions for climate adaptation (case studies)
 - Forest (Madagascar and Colombia)
 - Grassland (Kenya/SA)
 - Mangrove (Philippines)
3. CI's Database of Adaptation Interventions
4. Importance of co-designing NbS with local communities and indigenous communities
5. Identify any non-intended negative outcomes of the selected solutions
6. The importance of considering other benefits of NbS
7. Social and political barriers to implemented NbS for adaptation in the target area
8. Q& A
9. Interactive activity (small groups- breakout rooms)
 - Participants share what they still need to think about in their projects, based on what they have learned today.
10. Introduce Homework for next session

Office hours for this module:

September 24, 4-5 AM EST / 10-11 am CET for Giacomo

September 24, 10-11 am EST / 4-5 pm CET for Starry

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Suggested reading materials for Module 3:

At least one of these ecosystem-specific cases:

Agroforestry specific: Amy Quandt, Henry Neufeldt, Kayla Gorman.
Climate change adaptation through agroforestry: opportunities and gaps,
Current Opinion in Environmental Sustainability, 2023.
<https://www.sciencedirect.com/science/article/pii/S1877343522000963>

Wetlands specific:
Guardian April 2024 article about water rationing in Bogota:
<https://www.theguardian.com/world/2024/apr/12/colombia-bogota-drought-water-rationing>

Sophia Alvarez Wong Master's Thesis on Enhancing Water Supply Resilience & Sustainability: Potential Solutions to Address Water Scarcity in Bogotá, Colombia download the article at the link [here](#) and focus on pages: 1-4, 9-18, Section 2.2 p.46-49, Section 3.1.2 p.63-65, Management Recommendations p.69-73

Mangroves specific

The Global Flood Protection Benefits of Mangroves"
(<https://www.nature.com/articles/s41598-020-61136-6>)

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Module 4: Monitoring Nature-based Solutions for climate adaptation

Live session: September 30, 2026 **10-11:30 am EST /// 4-5:30 pm CET**

Duration: 1.5 hours

Homework prior to taking the module: please update your theory of change, if needed, and Identify points in the theory of change when monitoring of interventions and benefits could be measured.

1. Importance of monitoring climate adaptation benefits
2. Effectiveness of Nature-based Solutions for climate adaptation
 - What we know about effectiveness (impact assessment and monitoring and evaluation studies)
 - What we know about cost-effectiveness (studies that have looked at costs and effectiveness)
 - What we know about Return on investment

- (Restoration calculator (using world bank data)-check with Monica)
- 3. How to monitor climate adaptation benefits
 - Types of indicators to monitor each type of adaptation benefit
 - Methodologies to monitor adaptation benefits
 - Challenges of monitoring restoration interventions
- 4. Tools to select indicators
 - Present CI's tool with interventions and suggested indicators (sharepoint)
- 5. Q& A
- 6. Interactive activity (to be discussed and refined)
 - Individuals or groups identify the indicators and metrics that could be used to track the adaptation benefits of their projects
- 7. Conclusion of the training, and exit survey for the training

Final Office hours for the training:

- 8. October 1, 4-5 am EST / 10-11 am CET for Giacomo
- 9. October 1, 10-11 am EST / 4-5 pm CET for Starry

Suggested reading materials for Module 4:

Strategies for adaptation to and mitigation of climate change: Key performance indicators to assess nature-based solutions performances:

<https://www.sciencedirect.com/science/article/pii/S2212095523001748>

Guidebook for Monitoring and Evaluating Ecosystem-based Adaptation Interventions

https://www.adaptationcommunity.net/download/ME-Guidebook_EbA.pdf

Logistics, resources and office hours

- To include, at the end of each module, information on office hours when Giacomo and Starry will be available.
- To collect information on participants, disaggregated by country, gender, sector, IP&LCs, youth, vulnerable people.
- To assess their improved capacity to implement projects that consider climate adaptation of people:
 - evaluation of the participants theory of change at module 3 and again at the end of module 5
 - evaluation of changes planned to be implemented during identification, implementation or monitoring based on what participants learned during the training
 - evaluation based on attendance to every module
 - evaluation based on participation during modules, and participation during office hours
- Training will be delivered live and recorded for people to watch later (other options to be discussed).
- To set up a working group for countries to discuss and for meeting a few times a year to share how project is going.
- To set up and share folders with information (publications, reports) per module.