REINFORCING SCIENCE-POLICY INTERFACES FOR INTEGRATED BIODIVERSITY AND CLIMATE KNOWLEDGE AND POLICIES

Templates for online courses and collaborative arrangements

Deliverable 4.1

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Part I: Templates for online courses

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Summary

This document is intended to support the development of online courses as part of Deliverable 4.1 of the RESPIN project. There are two parts to this deliverable: the template and process for developing the online course and ii) the collaborative arrangements with UNDP to host the online courses on behalf of the RESPIN project.

The **introduction** provides context for the RESPIN project, under which 3 online courses will be developed, and sets out **the Learning Management System (LMS) *Learning for Nature* (LfN)**, the platform where the courses will be hosted.

The **second section** of this document **provides a comprehensive, step-by-step guide to developing online courses.** This guide is a framework and designed to be adaptable across a range of platforms, subjects and audiences, and includes best practices, planning tools, and quality assurance measures to ensure the effectiveness of the courses developed.

The **third section outlines a simple, and adaptable template for a communication strategy** to promote online courses, covering key elements like messaging, audience targeting, channels, timing, and evaluation.

List of abbreviations

DoA	Description of Action
EC	European Commission
EU	European Union
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
LfN	Learning for Nature
LMS	Learning Management System
MOOC	Massive Open Online Course
RESPIN	REinforcing Science-Policy interfaces for INtegrated biodiversity and climate knowledge and policies
UNDP	United Nations Development Programme
WCAG	Web Content Accessibility Guidelines

1 Introduction

This introduction sets the stage for the RESPIN project, which involves the creation of three online courses, and introduces Learning for Nature (LfN), the Learning Management System that will host these courses.

1.1. The RESPIN Project

RESPIN is an EU-funded project aiming to support the integrated provision and use of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC) processes and outputs. RESPIN will identify gaps in knowledge provision and develop strategies to address them, improving the engagement of diverse knowledge holders, with particular support for underrepresented regions in Central Africa, Central Asia, and Latin America. Additionally, the project will facilitate the uptake of IPBES and IPCC outputs within the EU science service mechanism, as well as national and subnational decision-making processes. RESPIN has five main functions:

- **Function 1** enhances the participation of diverse knowledge holders in IPBES and IPCC by assessing engagement levels, improving capacity-building activities, and fostering long-term collaboration.
- **Function 2** identifies gaps and barriers in using IPBES and IPCC findings across various levels, aiming to improve data integration, policy coherence, and collaboration between climate and biodiversity efforts.
- **Function 3** integrates IPBES and IPCC findings into EU decision-making, enhances policy coherence, develops private sector engagement formats, and supports EU delegations in international negotiations.
- **Function 4** raises awareness of IPBES and IPCC processes by translating findings into accessible resources, developing training courses, establishing a collaborative platform, and fostering strategic partnerships for effective outreach and dissemination.
- **Function 5** ensures coordination and synergy among project activities through regular meetings, a steering committee, and an Advisory Board, providing complementary reports and recommendations to key partners and remaining adaptable to future developments.

Measures for digital upscaling and dissemination, along with strategic collaborations, will ensure the availability and impact of the project's outputs beyond its duration. **This template is provided by Function 4 responsible for digital upscaling, which is achieved by translating project findings into accessible online courses, fact sheets and other knowledge products for decision-makers.**

1.2. Learning for Nature

Following a review of the landscape of different platforms to host the course Learning for Nature (LfN) was identified as the most appropriate candidate. LfN is a premier e-learning programme developed by the United Nations Development Programme (UNDP). This programme engages biodiversity policy-makers, change-makers, and on-the-ground subject

matter experts to promote biodiversity conservation and facilitate the achievement of the Sustainable Development Goals.

The availability of courses on the portal depends on the relevance of the course content to the platform's target groups, as well as the capacity of the LfN team. Contact with LfN is required to find out about options for collaborations to provide courses on the portal.

1.2.1. Course formats

LfN offers three different course formats, **each designed to support different learning styles and teaching goals**. The table below shows the main features of each format, along with the benefits they offer for both course creators and learners.

Table 1: Course formats available on LfN

Format of courses	**Massive Open Online Course (MOOC)**	**Self-paced course**	**Micro-course**
Definition	A MOOC is an online course designed for a large number of participants, with open access and no admission requirements.	A self-paced course is a course where learners can progress through the material at their own speed and schedule.	A micro-course is a short, focused online course designed to deliver a specific skill or knowledge area in a concise, typically self-paced format.
Timeframe	Timebound courses over a period of 3-5 weeks. Courses must be completed within this specific timeframe.	There is no time limit for course completion.	There is no time limit for course completion.
Facilitation/ Interaction	At the beginning of each week, participants receive an email with instructions with the week's work. A MOOC is an interactive format, where people can ask questions and share their experiences in a chat during the time frame of the course.	Non-facilitated courses, however, there can be interactive formats such as quizzes where wrong and right answers are predefined, and participants get automated feedback on their performance.	Non-facilitated courses, however, there can be interactive formats such as quizzes where wrong and right answers are predefined, and participants get automated feedback on their performance.
Duration	3-5 modules	4-6 modules	2-3 modules
Certificate	Yes	Yes	Yes
Time commitment for course preparation and delivery	High Even with careful preparation, thousands of comments can come in each week, requiring a team of facilitators to manage them.	Medium A thorough preparation is needed to ensure a good learning experience.	Medium/Low Same as in a self-paced course, but less work, due to the smaller number of modules.

1.2.2. Course components

Each course, regardless of its format, includes a combination of required and recommended components that support effective learning and engagement:

Required:

- **General course information**: It should include concise and clear course description, outlining the course's objectives, key content, and learning outcomes. It should also cover the course's structure with a syllabus, including the schedule, assignments, and assessment methods. Additionally, it may include information about prerequisites, required materials, and contact information for the instructor.
- **Modules**: Self-contained, structured units designed to deliver focused knowledge on a specific topic or learning objective. Modules help organize and structure the overall course content. Typically, a course includes 4 to 6 modules.
- **Lessons**: Each module begins with a lesson, typically presented as an interactive PDF. A single module may include multiple lessons.
- **Discussion forums**: They can be used by participants to discuss the content of a lesson with other course participants.
- **Quizzes**: A quiz is included at the end of each module, and its completion is often linked to the awarding of a certificate.
- **Feedback survey**: At the end of each course, participants will fill in a feedback questionnaire to assess the quality of the course.

Recommended/optional learning materials:

- **Video lectures:** a recording of a lecture, presentation, or discussion, typically used for online learning
- **Case studies:** Case studies showcase successful examples/solutions/answers/experiences/initiatives.
- **Workbooks**: these structured documents are designed to enhance learning by actively engaging students with the course material. It provides a space for note-taking, exercises, and self-assessment, encouraging deeper understanding and retention of concepts.
- **Reading materials**: articles, fact sheets, online resources such as links to websites, guidelines etc.

2. Guide to developing online courses

This section offers a step-by-step approach for creating online courses that will be utilised by the RESPIN project. It serves as a general framework that can be tailored to various LMS, topics and target groups, incorporating best practices, planning resources, and quality assurance strategies to enhance course effectiveness. Courses are typically developed over several months using a variety of learning materials. To manage this process effectively, it is recommended to form a small, collaborative team from the outset.

2.1. Course design

Initial steps:

1. **Establish your team and define collaboration methods:** Decide how the team will communicate, how often to meet, and clarify each member's role and expertise (e.g., video production, content writing).
2. **Define the course framework and timeline:** Set a clear timeline leading to the course launch on LfN, and outline major tasks and milestones.
3. **Draft a preliminary course structure:** Identify how many modules the course will have and what each might include. This helps estimate the scope and time needed for development.

2.1.1. Define learning objectives and key components

The following guidelines are designed to streamline course development. While applicable to any online course, they are tailored to the formats provided by Learning for Nature.

1. **Target group analysis:** Clearly define your audience. The course content, structure, and teaching approach should reflect the needs and preferences of this group.
2. **Course objectives:** They guide content development and provide a clear structure for the entire course. These overarching goals can be broken down into smaller, step-by-step objectives that shape the content of individual modules. Each module should include 1-2 clear, measurable learning outcomes, ideally phrased as: "*By the end of this module, you will be able to…*"
3. **Course title:** The course title should be short and engaging, ideally composed of 4-8 words. It should reflect the main topic of the course and appeals to the target audience.
4. **Course references:** All organizations that are responsible for developing and setting up a course are included in the references, including all contributing organizations and donors (e.g. EU/project number). Optionally, a section where instructors introduce themselves can be set up.
5. **Course description:** A strong course description should include the following information:
    a. A brief introduction providing some background to the course and demonstrating its relevance;
    b. Course format (MOOC, self-paced, or micro-course);
    c. Course duration (e.g. 5 hours);
    d. A brief course description, including what the participants will learn and what relevant skills they may develop;
    e. The course's main highlights and essential learning outcomes (3 to 5) and;
    f. The language(s) in which the course will be available.
6. **Certificates:** Participants usually have the option to earn a certificate upon completing a course. This typically involves regular tests or quizzes designed to measure and reinforce their learning progress. In addition to recognizing what participants have learned, the certificate also acknowledges their effort and commitment to the learning process.

The following table outlines the information required by Learning for Nature to define the course's learning objectives and key components.

Table 2: Template for information required by LfN

Information required	To be filled in by the course team
Course title	
Short course description (1-2 sentences)	
Course format (e.g. MOOC, self-paced or micro-course)	
Language(s)	
Estimated time to complete the course	
Learning objectives	
Course highlights and outcomes	
Course structure (number and titles of modules)	
Certificate requirements (i.e once participants have completed the course and all required activities are marked as finished, they will receive a certificate of completion)	
Course organizers, contributors and donors	
Contact details of the course coordinator(s) (e-mail address)	
Brief overview of the project offering the course	
Brief description of the donor(s)	

Additionally, a frequently asked questions section can be included on the main course page answering questions and highlighting some points such as:

1. Do I need any qualifications to enrol in this course?
2. What are the technical requirements to enrol in this course?
3. What are the requirements to receive the certificate of completion?
4. Are there any system requirements for accessing course content?
5. How do I receive my course completion certificate?
6. How can I get in touch with the course organizers?

2.1.2. Develop a course syllabus and modules

The aim of a syllabus is to provide participants with a detailed overview of the course structure and content across the different modules (see figure 1 for an example). It also outlines the course components that are required for completion and awarding of a certificate, along with those recommended for optional, in-depth learning. Each module should be designed to take approximately 1 to 2 hours for participants to complete.

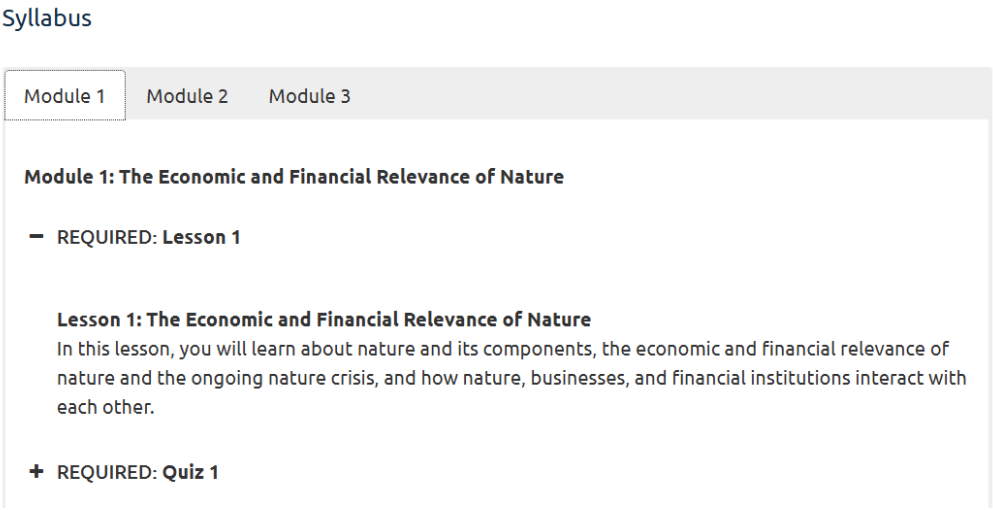


Figure 1: Syllabus example from the LfN website. Reference: "*An Introduction to Nature, Business, and Finance*." Learning for Nature, UNDP, www.learningfornature.org/en/courses/an-introduction-to-nature-business-and-finance/. Accessed 15 April 2025.

The overall modular structure of a self-paced course is flexible and the number of modules usually vary between 4 to 6 modules. Each module can contain different learning materials such as videos, readings, quizzes and other interactive elements. The required and recommended components of each module are given in table 3.

Table 3: Syllabus components per module: required and recommended

Module	**Content/information**
Required	
Lesson	Title of lesson and short lesson description. This specific unit covers a particular topic or skill.
Quiz	The quiz checks the participants' comprehension of the material covered in the respective module.
Discussion forum	The discussion forum offers a space for participants to share completed workbooks, receive feedback from peers, and engage in conversations about the module content using the recommended prompts.
Optional	
Video lectures	Lecturer name and video title.
Workbook	The workbook allows the learners to reflect on and apply the information provided in the module to their own context.
Case studies	Case studies showcase successful examples/solutions/answers/experiences/initiatives.
Additional reading material	Additional reading materials, such as fact sheets, reports, scientific papers, websites etc. which allow the learner to deep dive into the topic if desired.

2.2. Content Development

2.2.1. Develop a script for each module

When the overall course framework and a preliminary module structure have been established, the next step is to create specific content for the course, starting with writing a detailed script for each module.

A script serves several important purposes:

1. It outlines the spoken/written content and visuals elements, such as activities, of each modules, ensuring an informative and engaging learning experience;
2. It creates an overview of the tasks that will need to be completed by the course creators, and;
3. It ensures that all information needed by the LMS, in this case LfN, are properly articulated and available.

Each module might integrate a combination of multimedia formats to enhance learning and ensure engagement. Below is a suggested structure for a 1,5 hour module using various multimedia materials:

- **Introduction (5-10 minutes):** Video or audio introduction to the topic.
- **Key concepts (15-20 minutes):** Interactive lesson with animations, infographic, etc. to explain core concepts.
- **In-depth learning (30-40 minutes):** A deeper dive using a mix of detailed videos, case studies, podcasts, etc.
- **Reflection and discussion (10 minutes):** Discussion forum or workbook to consolidate learning.
- **Testing (5-10 minutes):** Short quiz to assess the learning success.

Table 4 below offers an example script template on how combine multimedia formats can be combined in a module.

Table 4: Example template for a module script.

Activity	Short description	Content	Responsible for content	Tasks for CoKnow team	Development process & timeline	Requirement for certificate
Lesson	Summary of the lesson	Bullet points for each slides	Name of the person responsible for this output from Function 1,2,3	- Checks content for understandability - Editing suggestions - Creates slides based on the contents provided		E.g. Mark lesson as completed
Quiz	Short explanation of the quiz	-Type of quiz (e.g. multiple choice, fill in missing words, crossword	Name of the person responsible for this output from Function 1,2,3	- Makes suggestions for quiz types - Technical implementation		E.g. Achieve a score of at least 75% on the quiz

		puzzle, etc.) -Questions and answers for the quiz				

2.2.2. Create stimulating lessons

Lessons are the cornerstone of each module and among the few mandatory learning materials at the start of every module. These instructional units focus on specific topics or skills and are typically delivered as interactive PDFs, available for download. They provide participants with an introduction to the module's structure, content, and activities.

Learning for Nature provides guidance for preparing engaging lessons which can be found at the end of this section, in Box 1. You will find below a summary of what a typical lesson should contain:

- **Introduction:** Description of the lesson's topic, its fundamental relevance and the importance of exploring it in the context of the entire course and the module it is part of specifically.
- **Course structure:** Ideally, it is presented as an interactive visual with short explanations for each section.
- **Learning objectives:** Starting with '*You will learn to...*' followed by an action verb aligned with a learning taxonomy (e.g., 'define,' 'outline,' 'explain'). Ideally, include up to 6 learning objectives per module.
- **Glossary:** List all technical terms used in this module with their respective definitions.
- **Content:** Slides with content following the course structure and addressing the objectives of the lesson.
- **Additional resources**
- **Conclusions:** 1-2 slides summarizing the contents taking into account the learning objectives (rephrased with synonyms)
- **References:** Citations and the list of sources used in the module.
- If applicable, you can add a link to the workbook available at the end of the lesson.

Once a rough outline of the lesson content is developed, it is then expanded into a detailed lesson script. Similar to the overall course script, the lesson script helps organize and structure the content effectively. Table 5 serves as a practical template to guide the creation of a lesson script.

Table 5: Template for a lesson script.

Slide No	Slide title	Slide text	Notes	Screenshot from slide

Effective lesson design should aim to sustain participants' attention, foster growing interest in the topic, and ensure an engaging and memorable experience for both learners and instructors. To achieve this, consider the following tips:

- **Format:** The lesson should be presented in the form of an interactive PDF, which can be created using platforms such as Genially or Canva.
- **Number of slides:** No more than 15 to 20 slides (as few slides as possible, and as many as necessary).
- **Word count:** While it may vary between slides, bullet points should be prioritized over full sentences. Additionally, the entire lesson should not exceed approxiametly5000 words.
- **Visuals:** Fewer words and more meaningful images, graphics, diagrams and other visual and interactive elements should be priotized. Visuals increase participants' motivation to complete the lesson promptly and entirely as they enhance understanding, particularly of complex concepts.
- **Lesson completion:** The lesson should take approximately 30 to 45 minutes or less to complete (hence accounting for the normal human decreasing concentration span).

Box 1: Additional tips and guidelines from Learning for Nature

Quick Guidelines for Lesson Writers

A detailed example of a lesson script provided by LfN

Guide to develop a lesson with Genially

Genially tutorials:

- Building interactive lessons with Genially
- Make a Genially in 5 steps

2.2.3. Develop multimedia and interactive learning materials

2.2.3.1. Crafting quizzes with varied formats

Each module must include a quiz, typically administered at the end, with participants required to score at least 70% for each module in order to receive their course certificate.

Quizzes in online courses assess and reinforce participants' knowledge through self-testing, offering benefits such as boosting motivation and engagement (as a requirement for the certificate), measuring progress, identifying knowledge gaps, and fostering critical thinking. Overall, quizzes enhance understanding and provide valuable feedback for both participants and instructors.

To gain such benefits, consider the following tips when creating quizzes:

- **Variety of quiz types:** Incorporating different quiz formats - such as multiple choice, true/false, fill-in-the-blanks, and open-ended questions - can support diverse learning styles, align with various teaching goals, and help maintain participant engagement throughout the course.
- **Questions formulation:** Questions should be clear and precise to eliminate ambiguity and ensure all participants understand what is being asked. Each question should align closely with the course's learning objectives to maintain relevance and usefulness. To keep participants engaged, question difficulty should increase gradually, offering a balanced challenge without becoming overwhelming.
- **Adds-on:** Interactive elements like images, audio, or scenarios can make a quiz more engaging. A timer can also help maintain focus. Rewards such as points or badges, along with a progress bar, can boost participants' motivation.
- **Completion time:** A quiz should be concise, ideally containing between 5 to 10 questions, which is sufficient to effectively assess knowledge.
- **Feedback:** While feedback after each individual answer is not always possible, learners will always get a general feedback at the end of a quiz to discover how much they scored, where they were right and wrong, and why.
- **Quiz software:** While LfN includes a software to create quizzes, other LMS do not necessarily. Fortunately, there are many free online tools to create quizzes. Among them are Google Forms, Quizlet, Kahoot!, Microsoft Forms, Quizizz, and SurveyMonkey (with limited features).

2.2.3.2. Creating engaging discussion forums

Discussion forums offer a space for participants to share completed workbooks, receive feedback from peers, and engage in conversations to reflect on the module content using the recommended prompts. These forums are not supervised by the course instructors but need to be prepared in advance with impulse-giving and structuring questions to fit each module's content.

Figure 2 below shows a forum page on LfN, illustrating how these interactive learning materials can encourage reflection and knowledge exchange. Registered participants are given the opportunity to contribute by posting comments, answers, and ideas.

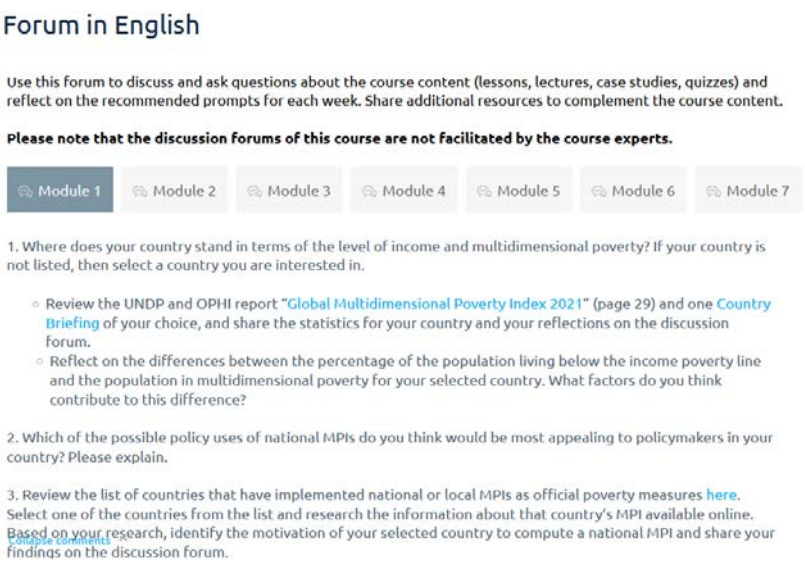


Figure 2: An example of a discussion forum in a course hosted on LfN. Reference: "*Designing a Multidimensional Poverty Index*." Learning for Nature, UNDP, https://www.learningfornature.org/en/courses/designing-a-multidimensional-poverty-index-2022-2/. Accessed 15 April 2025.

2.2.3.3. Feedback survey

At the end of each course, participants will need to fill in a feedback survey to assess the quality of the course and help guide the development of future courses.

This feedback survey asks a participant about almost every aspect of the course, using different question formats. It usually starts with a question on the participant's general satisfaction, followed by questions about personal information (age, gender, professional background, etc.). Then, the survey assesses the participant's opinion on the course structure and its topics, as well as on the learning materials, the opportunities for interaction, any further interest in this topic and other similar topics, etc.

On LfN, the feedback survey is delivered via a Google form, serving as the final step of the course and a prerequisite for receiving the course certificate.

Feedback serves a dual purpose: it enables the enhancement of existing courses through the substitution and addition of links, as well as minor text edits. More importantly, beyond immediate adjustments, the feedback provides valuable insights and guidance for the development of future courses.

2.2.3.4. Recording video lectures

Since producing video lectures involve a more extensive process, we have prepared an Annex that outlines each stage in detail - from planning and production to editing and publishing. The paragraph below provides only a brief summary of the main steps. For a comprehensive guide and detailed instructions, please refer to Annex 1.

Video lectures are pre-recorded instructional videos participants can access at their own convenience. These videos are typically delivered through an online platform and create a more personal connection with participants.

Below are the key steps for creating engaging and informative videos.

1) **Planning**
   a) **Select a topic:** Define a clear, relevant topic aligned with the module learning goals.
   b) **Determine the target audience:** Identify the target audience, considering their prior knowledge and needs, and tailor the video to engage specific groups, such as those with less background in the topic.
   c) **Define learning objectives:** Clarify what the participants will learn and what relevant skills they may develop after watching the video.
   d) **Create a video outline**: An outline highlights key video elements and guides the production team, typically including an introduction, main body, and summary.
   e) **Script writing**: After outlining, the next step is to write a detailed script, including any visual aids or interactive elements like quizzes.
2) **Recording**
   a) **Rehearse the script:** Lecturers should rehearse the script to ensure clear, concise delivery at a suitable pace and maintain eye contact to enhance engagement.
   b) **Choose a filming location:** Ideally, the video should be recorded in a quiet environment with no noises or distractions, and good lighting.
   c) **Prepare the equipment**: Ensure all the technical equipment needed to record a high-quality video is available, in this case a camera and a microphone. It is crucial to verify that each equipment is compatible with one another. Finally, check the proper recording software are at hand.
   d) **Video recording:** Once all of the above has been done, the video can be recorded. Follow the script and pay attention to the sound and image quality. If necessary, use multiple camera angles or screen recordings.
3) **Post-production**
   a) **Video editing:** The raw video material can be edited, cutting out errors to ensure a smooth flow. Visual effects and animations, as well as explanatory graphs and additional text content (such as definitions or notes), can be added to visualise complex content or summarize main points.
   b) **Audio editing:** It is also possible to edit the audio of the video to remove any background noises or add music and sound effects.
   c) **Increase accessibility:** To improve accessibility, ensure videos work on all devices, use high-contrast visuals and adaptable fonts, and provide transcripts, subtitles, and alt text.
   d) **Collect feedback:** It is important to share the video with colleagues or a test group to ensure that the video is understandable and engaging.

2.2.3.5. Instructive workbooks

Ideally, each module includes exercises that help participants apply what they have learned to their own context or adapt it to new situations. Workbooks are a great tool to achieve this:

they are designed to enhance learning by actively engaging students with the course material. They provide a space for note-taking, exercises, and self-assessment, encouraging deeper understanding and retention of concepts.

Workbooks can be created using a variety of platforms, such as Google Docs, Genially, or Canva, and shared as interactive, fillable PDFs.

To create an effective workbook, consider following the below tips:

- **Structure:** An outline should first be developed to divide the course content logically and clearly into chapters or sections, ensuring a strong connection with the module it is part of. Incorporating interactive elements like exercises, reflection questions, and checklists can make learning more engaging and encourage the practical application of knowledge. The workbook's structure should also include ample unstructured space for personal note-taking.
- **Accessibility:** While the workbook should be inclusive and accessible to a diverse group of learners, it should also be thoughtfully tailored to the specific needs of the course's intended audience.
- **Visuals:** Some meaningful images, graphics, and tables should be used as they increase participants' understanding of complex concepts. See figure 3 below.
- **Instructions:** Instructions should be clear and precise to ensure all participants understand what is being asked. They should indicate how to fill the workbook, download it as a PDF or Word document on one's computer, as well as explain how to print the workbook and share it in the discussion forum.

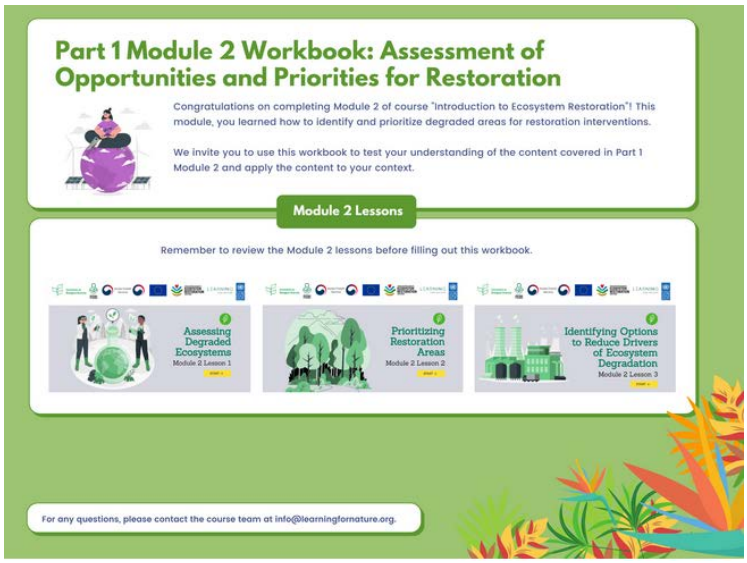


Figure 3: First page of an interactive workbook created with Genially. Reference: "*Ecosystem Restoration 2023*." Learning for Nature, UNDP, https://www.learningfornature.org/en/topic/workbook-2-assessment-of-opportunities-and-priorities-for-restoration-2/. Accessed 15 April 2025.).

2.2.3.6. Case studies

Case studies are detailed analyses of a single topic, specific problem or entire project that have been applied in practice. Case studies or worked examples are used to analyse specific processes, solutions, results or experiences in order to gain valuable insights. It is an approach used in research and education to utilise real-life examples and demonstrate how the theory-practice link can be successful. Such an approach helps to identify best practices and share experiences so that they can be utilised when others are faced with similar challenges. In addition, they allow newly acquired theoretical knowledge to be integrated sustainably.

A high-quality case study has the following core characteristics:

- **Relevance:** The topic/problem must be of interest to the recipient target group.
- **Detailed analysis:** The analysis of the case/problem comprehensively and holistically highlights causes, processes, solutions and results.
- **Evidence-based:** Concrete data, facts and examples ensure that the presented solution approach and the associated results are credible and comprehensible.
- **Practical application:** The case study should show exactly how solutions have been implemented in practice and with what concrete impact(s).
- **Learning potential:** Valuable findings can be transferred/utilised as best practices.
- **Format:** The case study can be presented in a PDF or video.
- **Visual elements:** Graphics, diagrams and vivid images and video recordings should be used as they increase participants' understanding of complex concepts.

An effective case study not only deepens understanding of a topic but also serves as a guide for future decisions, strategies, and solutions. Presented through compelling storytelling, it can raise awareness of critical issues and inspire meaningful action. Learning for Nature provides a self-paced course (created with Genially) which unfolds the entire process of creating effective storytelling and demonstrates how powerful this tool is:

- "*Elements of Impactful Storytelling for Advocacy*", Learning for Nature, UNDP;
- Module 1 'The power of storytelling' in the course' in the course "From Grassroots to Global Impact: Effective Communication for Local and Indigenous Leaders", Learning for Nature, UNDP.

2.2.3.7. Reading materials

Additional reading materials - whether written or multi-media-based - can be recommended to participants to allow for a deeper exploration of key topics. These resources may include:

- Fact sheets
- Policy briefs
- Reports
- Scientific papers
- Articles
- Newsletters
- Webistes
- Videos

- Podcasts
- Other online courses

Fact sheets are particularly well-suited as additional readings in online courses, as explained in the box below.

Box 2: The benefits of fact sheets as reading materials

Fact sheets are concise documents that present key information about a specific topic in a clear and easily digestible format, allowing for quick information delivery. To ensure participants can work effectively with them, fact sheets can ideally be provided along with small, targeted tasks that encourage active application and deeper understanding of the information.

Like any other written document, fact sheets are subject to quality criteria:

- **Clarity and precision:** A fact sheet should only present the most essential information, expressed concisely and in a way that is easy to understand.
- **Structure:** It should follow a logical outline and make use of visual elements such as headings, paragraphs, bullet points, tables, and graphics to enhance readability.
- **Visual elements:** Diagrams, images, icons, tables and graphs can help illustrate the information contained in a fact sheet and make it more engaging.
- **Audience:** A fact sheet needs to be tailored to a pre-defined target audience.
- **Up-to-date information:** It should be regularly revised so the information it presents is as up-to-date as possible.

2.2.4. General aspects for developing content

When developing a module and its associated learning materials, it is crucial to follow some general principles to ensure the online course is inclusive, accessible, and user-friendly.

2.2.4.1. Sensitivity towards gender and diversity

To create an inclusive and respectful learning environment, course content and teaching methods should thoughtfully address the different gender identities and cultural backgrounds of all participants. This means avoiding discriminatory language, using gender-equitable wording, thus ensuring all learners feel respected and valued regardless of their background or identity. Such sensitivity not only promotes a better learning atmosphere but also contributes to a more conscious approach to diversity and inclusion.

The following aspects explain how this can be achieved:

- **Inclusive language and neutral formulations:** Avoid gender bias and discrimination by using gender-neutral nouns like "people" or "humanity" instead of "men" or "mankind", and gender-neutral pronouns like "they" instead of "he" or "she".
- **Providing optional pronoun fields**: Participants should be given the opportunity to specify pronouns that are relevant to them in their profiles (e.g. she/her; he/him), hence acknowledging diverse identities and encouraging mutual respect.

- **Highlighting varied perspectives:** Learning materials should created by professionals from different backgrounds and with different perspectives to ensure that the course content reflects diversity in terms of gender, ethnicity, age and social backgrounds.
- **Promoting diversity through integrated course materials:** The integrated content, examples, case studies and other materials used in the course should account for and feature diverse cultures, ethnicities and gender identities. This promotes an awareness of diversity and increases the relevance of the topics.

2.2.4.2. Accessibility

Accessibility involves designing information, activities, and environments to be understandable, meaningful, and usable for as many people as possible, regardless of their individual capabilities and limitations. The aim is thus to lift barriers that could prevent people with impairments, e.g. visual, hearing or mobility impairments, from accessing the course materials.

The following aspects should be taken into account:

- **Visual accessibility:** The use of high-contrast colours and adaptable font sizes, as well as the provision of alternative text for images and graphics can increase visual accessibility. In this context, videos become more accessible through the use of transcripts and subtitles.
- **Auditory access**: This is achieved though transcripts for audio files, subtitles and descriptions. Clear and understandable language is a further way to ensure auditory access.
- **General navigation and usability:** Technical standards are largely developed and defined through the Web Content Accessibility Guidelines (WCAG) and other accessibility standards. There are a variety of technologies designed to enhance accessibility for people with disabilities, helping them navigate the world, communicate, and interact with digital platforms more easily. As keyboards and screen readers can be used to navigate through the course content, a clear, structured and consistent user interface is important to ensure easy navigation. In this regard, unnecessary visual effects that could irritate people with certain impairments should be avoided. It is also recommended that interactive elements like quizzes, polls and discussion forums are used with assistive technologies. It is also worth considering that many learners now access courses from mobile devices rather than a desktop computer. Hence, it is important to ensure the course works well on both desktops, as well as, mobile devices.

3. Communication strategy for course promotion

This third section provides a template for a strategic communication plan to promote online courses. The template outlines key components - including core messages, audience segmentation, communication channels, scheduling, and evaluation methods - designed to

help increase course visibility and learner engagement. The suggested template to create a simple communication strategy to promote online courses is set out in Table 6.

Table 6: Communication strategy template for promoting online courses

	Goal	Examples	Steps
Objectives	Define clear, measurable objectives for your communication strategy.	• Increase course enrollments by 25% within six months; • Raise awareness of the course within the relevant community.	• Set SMART goals (Specific, Measurable, Achievable, Relevant, Time-bound).
Target audience	Identify primary target audiences and their needs for the respective course(s).	• Students, graduates, early-career and researchers in environmental sciences, environmental diplomacy, environmental law, etc. • Policymakers and practitioners in the fields of climate change, nature-related topics including biodiversity &CC, SPIs • NGOs, non-profits, consultants focused on biodiversity related fields	• Define demographic characteristics and interests of target group(s); • Analyze communication preferences (e.g., preferred platforms) of audience.
Key Messages / Unique selling points	Develop clear and compelling key messages that highlight the unique benefits of the respective course(s).	• "Discover the latest scientific insights on climate change and biodiversity from leading experts." • "Develop practical skills to translate scientific findings into effective policy and meaningful societal action."	• Formulate primary and secondary messages; • Incorporate storytelling elements.
Mode of dissemination: channels and platforms	Identify the most effective channels to reach your target audiences	• Social media: e.g. LinkedIn, BlueSky, Facebook groups; • Scientific newsletters, EU newsletters; • LfN online learning platform and websites of partners; • CBD and UNFCC Secretariats and EUBP meetings.	• Select appropriate channels based on audience usage.
Content strategy & branding	Plan the creation and distribution of relevant content for each course. This includes strategic considerations, such as which branding rules and	• Blog posts on relevant topics like climate change policy; • Videos with expert interviews or course trailers; • Infographics that visualize complex scientific content; • SharePics that announce courses.	• Create a content plan for each channel; • Develop a content calendar; • Define key topics and formats; • Identify the required logos and branding

	guidelines need to be followed.		guidelines to be included.
Timing / Frequency	Create a detailed schedule for implementing the strategy and disseminating the announcements.	• Course announcement: 3 weeks *before* the launch date. • Weekly blog posts *after* the launch date.	Relevant questions to consider: • When will the course be finalized and launched? • Are there further opportunities / events to consider to launch the course publicly or more effectively (e.g. relevant IPBES or IPCC events?
Budget	Consider and plan the financial resources necessary to implement the communication strategy.	• Costs for social media ads; • Design and production of promotional materials.	• Break down the budget for different actions.
Success metrics / evaluation	Define evaluation criteria to measure the success of the communication strategy.	• Enrolment numbers; • Click-through rates; • Reach and engagement on social media; • Total downloads of course resources.	• Identify tools for measuring success (e.g. Google Analytics, social media analytics; analytical tools on LfN, etc.); • Determine how often the communication strategy should be evaluated for effectiveness.
Adaptation	Adjust the communication strategy based on the evaluation results.	• Amplify successful actions. • Improve under-performing communication channels.	• Increase visibility through partnerships.

4. References

UNDP, Learning for Nature, https://www.learningfornature.org/en/, accessed on various occasions in March and April 2025.

5. Annex 1: Recording video lectures

This annex builds on the elements presented in the video creation section, providing a more in-depth exploration.

The below recommendations for producing informative and engaging video lectures take into account all different stages of the process, from planning and production to editing and publishing. You may take into account the entire production process or focus selectively on particular stages, omitting others as appropriate. For instance, you might bypass the initial phases if the target audience has already been established for the course, or the later phases if quality assurance applies to the course as a whole.

I. Planning

1) Select a topic: Define a clear, relevant topic aligned with the module learning goals.

2) Determine the target audience: If this has not already been done for the entire course, it is helpful to identify the potential participants (e.g., students, professionals, specialists) and consider their prior knowledge, needs, and expectations. The video can also be designed to appeal more to a specific group of participants, such as those with less prior knowledge of the topic, whom you want to encourage to explore it further.

3) Define learning objectives: Clarify what the participants will learn and what relevant skills they may develop after watching the video. These learning objectives should be clearly stated at the beginning of the video.

4) Create a video outline: Designed to highlight the most important elements of the video, the outline helps the production team to direct the filming process. A typical outline should include:

- **An introduction:** It should include a brief description of the video's topic, its fundamental relevance and the learning objectives of the video.
- **A main body:** This can be a slide-supported presentation that visually reinforces the spoken content, complemented by definitions, descriptions, explanations, and examples.
- **A summary of key conclusions:** It should highlight the main concepts covered in the video and present the key conclusions.

5) Script writing: Building on the outline, the next step is to dive into creating specific content for the video, starting with writing a detailed script. A script is helpful in ensuring consistency

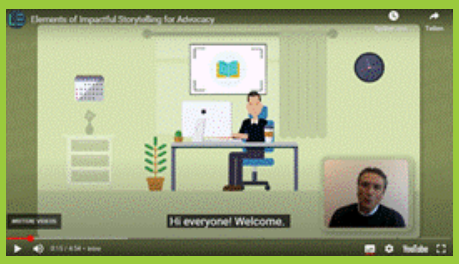
in the content and tone of the whole video. This preparatory work also saves time during recording by helping lecturers stay focused and maintain concentration while speaking. Finally, if lecturers use visual aids (such as slides with pictures, graphics or animations) or interactive elements (such as quizzes) they should include these in the script. Box 3 offers advice on visual aids.

Box 3: Visual aids

It is recommended that videos include visual aids - such as slides with images, graphics, diagrams, animations, or scene recordings - as these elements make the content more engaging and stimulating. Similarly, incorporating interactive elements such as quiz questions or short exercises makes the video more vivid and memorable. It is essential to ensure that visuals are high quality, appropriately sized, and well-positioned. They should complement the text without overwhelming it - for example, appearing balanced alongside the text when displayed on a slide.

Speaker video: When presenting with slides, you have the option to record yourself using your webcam. It is important to decide in advance which corner of the screen the speaker video will appear in. You can see in the below examples how this ensures that area of the slides is kept clear, preventing the video from covering any important content. Alternatively, rather than placing the speaker video in a fixed corner, it can be inserted dynamically into different areas of the presentation. This approach allows the speaker to engage with the content more interactively and adds visual variety, making the presentation feel more dynamic and engaging.

Example: Speaker placement in the lower right corner



Example: Speaker placement in the lower left corner

Another option for featuring the speaker in the video is the use of avatars. Even if the speaker is not shown on camera, their presence can still be felt through an animated avatar, helping to maintain a sense of interaction and engagement with the participants.

II. Recording

1) Rehearse the script: Ensure the lecturer is familiar with the script so they can maintain eye contact with the camera and create a sense of interaction with the participants. Rehearsing also enables the lecturer to ensure that the video text is concise and clear, with short sentences, and delivered at a pace suitable for non-native English speakers.

2) Choose a filming location: Ideally, the video should be recorded in a quiet environment with no noises or distractions, and good lighting.

3) Prepare the equipment: Ensure all the technical equipment needed to record a high-quality video is available, in this case a camera and a microphone. It is crucial to verify that each equipment is compatible with one another. Finally, check the proper recording software are at hand.

4) Video recording: Once all of the above has been done, the video can be recorded. Follow the script and pay attention to the sound and image quality. If necessary, use multiple camera angles or screen recordings. A variety of recording software options are available, with the table below highlighting the most commonly used ones.

Table 7: Recording software options.

Software	Functions	Benefits	Suitable for
OBS Studio (Open Broadcaster Software)	Free, open source which enables video and screen recording. Very flexible, records presentation and webcam images at the same time.	Extremely customisable and well-suited for professional recordings.	Recording presentations and live streaming.
Camtasia (Video recording software for YouTube)	Fee-based software with simple user interface, screen recording and video editing, ideal for tutorials and presentations.	Many editing functions and templates to optimise presentations afterwards.	Anyone looking for an all-in-one solution for both recording and editing.
Loom	Starter version for free and Basic Business for 15 dollars/month. Easy to use, it allows simultaneous screen and webcam recording. Very good for quick, simple recordings.	Fast sharing of videos and cloud-based storage.	Simple presentations and quick communication.
Zoom (with recording function)	Well-known video conferencing software that also offers a recording function for meetings and presentations.	Recording of presentation while sharing it with others. Screen sharing is also possible.	Recording meetings or presentations with a live audience.

Microsoft PowerPoint (with built-in recording function)	Records a presentation directly in PowerPoint and inserts voice and animations.	Easy to use and directly integrated into the presentation software.	Quick, simple solution for presentations.
FlashBack Express	Free and easy to use. Records screen, audio and webcam.	Good quality recording, with some basic editing features.	Simple presentation recordings and screen casts.

III. Post-production

1) Video editing: The raw video material can be edited, cutting out errors to ensure a smooth flow. Visual effects and animations, as well as explanatory graphs and additional text content (such as definitions or notes), can be added to visualise complex content or summarize main points.

Box 4: Transitioning videos

If two or more videos are shown consecutively, they can either be connected thematically or clearly separated using appropriate transitions. There are many creative ways to move from one video to the next, allowing for varied and engaging transitions that enhance participants' experience.

Transition options include:

- **YouTube playlists:** Videos are played automatically one after the other.
- **In-Video links:** Annotations or "endscreen" elements link the next video.
- **Live broadcasts:** Verbal or visual announcements lead to the next video.
- **Social media links:** Links or comments in the description direct participants to the next video.
- **Storytelling techniques:** A cliffhanger at the end motivates participants to watch the next video and simultaneously prepares the introduction to the next video and its topic.
- **Automated transitions on own course platform:** Scripts or buttons lead directly to the next video after one finishes.
- **Interactive elements:** Clickable elements such as cards appear on screen during a video, directing participants to other videos.
- **QR codes:** A QR code in the video leads to the next video.
- **Video chapters:** Chapter divisions link to specific sections or related videos.
- **Gamification:** An interactive challenge motivates the participants to watch the next video.

2) Audio editing: It is also possible to edit the audio of the video to remove any background noises or add music and sound effects.

3) Increase accessibility: Accounting for people with different needs is another important step when editing videos. The accessibility of videos can first be improved by ensuring the video can easily be played on both the computer and mobile version of the course. Visual accessibility can be enhanced through the use of high-contrast colours, adaptable font sizes and the provision of alternative text for images and graphics. Auditory access can be increased by producing transcripts for audio files, subtitles and descriptions.

4) Collect feedback: It is important to share the video with colleagues or a test group to ensure that the video is understandable and engaging.

Part II: Collaborative arrangements

Table of Contents

Summary

This document is intended to support the development of online courses as part of Deliverable 4.1 of the RESPIN project. Specifically, it constitutes the second part of the deliverable: a report detailing the collaborative arrangements established with the UNDP e-learning platform Learning for Nature (LfN) to host three RESPIN online courses. These online courses aim to translate the research, materials developed and lessons learned from the project into accessible formats for a broad audience.

List of abbreviations

DoA	Description of Action
EC	European Commission
EU	European Union
LfN	Learning for Nature
LMS	Learning Management System
UNDP	United Nations Development Programme

1. Process to identify a suitable platform to host online courses

1.1 Define the requirements for platforms that will host our courses

The first step to identify a suitable platform was to define the requirements for platforms to host RESPIN courses. We aim to offer our RESPIN online courses through an online learning management system (LMS) - a software platform used to manage the administration, documentation, tracking, reporting, automation, and delivery of educational courses, training programs, and learning materials. A suitable learning management system would fulfill the following requirements:

- LMS designed to organize interactive online courses and self-paced courses
- Enough structural elements so that courses can be well-structured and differentiated
- Options for interactive activities such as quizzes, workbooks, forums, chats, polls, etc.
- Options to store diverse materials, including PDFs, videos, notes, links, mp4, etc.
- User-friendly interface
- Participant management (e.g. self-enrolment)
- Two access layers: trainers and participants (it would be important for RESPIN experts and trainers to have access to the LMS so we can set up our own courses)
- Explanations - perhaps even tutorials - for technical features and technical support when developing courses
- Ability to issue certificates upon completion of the courses
- Low costs for hosting courses

1.2 Evaluation and selection of a platform to host online courses

An initial list of potential platforms was established based on prior knowledge, internet searches, and recommendations from colleagues. An initial list of about 40 platforms was screened against the requirements for the RESPIN online courses identified in the first step of the process. From this initial list, 6 potential platforms were presented and discussed with the consortium in April 2024. Subsequently, these platforms were contacted to identify missing information on the requirements and to assess potential interest in hosting RESPIN courses. The list was then further narrowed down to 4 options, which were presented and discussed during the EU Liaison Meeting on the 12th of June 2024. The table below presents these options.

Table 1: LMS options to host the RESPIN online courses.

	LMS	Focus	Pros	Cons	Discussion points
Option 1	Learning for Nature, UNDP	Nature-related topics including biodiversity and climate change.	• Diversity of topics and formats; • Professional design and easy to navigate; • Large community.	• The conditions for offering a course are still unclear; • It might charge a fee for each course.	This is the preferred option due to its alignment with the topics and community, as well as the long-term availability of courses.
Option 2	UN CC:Learn, UN Climate Change Learning Partnership UNITAR	Climate change topics.	• Diversity of formats; • Professional design and easy to navigate; • An even larger community compared with the previous option.	• Difficulties to get in touch with this LMS organizers; • The conditions for offering a course are still unclear; • It focuses exclusively on climate change topics.	This is an unclear option as the platform is not responding.
Option 3	EU International Partnerships Academy	Environmental topics but with an international partnership lense.	• EU-based portal; • Very varied topics; • Professional design; • Course offering is free of charge.	Focus on international partnership (DG INTPA).	This is not an ideal option because of the difference in topics.
Option 4 - *Fall-back option*	CABES e-learning portal	IPBES capacity building with focus on the African continent.	• Platform run by CoKnow (hence familiarity with it); • Course offering free of charge; • Diversity of formats; • Professional design and easy to navigate.	• So far, it has a small community with a focus on Africa; • It has a different donor (IKI - International Climate Initative, German Federal Government.	This is not an ideal option because of its limitation in audience and it is unclear how long the platform will run for.

A first meeting with Learning for Nature was organised in July 2024. The outcome of the meeting was encouraging; however, before determining the potential costs of hosting the courses, LfN requested additional information regarding the number of courses, their types, and a rough outline of their content.

2 Developing a proposal for online courses with the RESPIN consortium

Together with the RESPIN consortium, we developed a proposal for three online courses between July and October 2024. This proposal provides a brief description of each course, including the format and a rough outline of its content. It was then shared with LfN to determine whether they would host the three courses and at which costs.

2.1 Outline for three online courses

The overarching aim of these three online courses is to raise awareness of IPBES and IPCC, and to disseminate their outputs to support the integration of biodiversity and climate knowledge into policies. The contents of the courses will result from the work accomplished by the project consortium. **The courses are to be launched between November 2025 and December 2026.** The three courses are roughly outlined below (all titles and contents are tentative and subject to change).

First course
Key theme: Introduction to IPBES and IPCC
Course type: Self-paced course with 4-6 modules
Draft course contents: Introduction to IPBES and IPCC histories, contexts, and goals; Functioning and procedures of IPBES and IPCC; Options to engage in IPBES, IPCC; Skills, engagement, exchange formats needed to work in IPBES and IPCC; Overview of programs and databases to IPBES and IPCC processes.

Second course
Key theme: How to use IPCC and IPBES assessments
Course type: Self-paced course with 4-6 modules
Course contents: What are assessments and how can they be beneficial for different target groups; How are they developed in IPBES and IPCC; How to use IPBES and IPCC assessments in different target groups (including case studies); Methods to increase knowledge uptake from IPBES and IPCC

Third course
Key theme: Climate change and biodiversity
Course type: Self-paced course with 4-6 modules
Draft course contents: Connections between climate, biodiversity and humans as well as connecting communities and processes; Biodiversity conservation in the light of a changing climate; Effects of climate mitigation actions on biodiversity and the reciprocal effects; Biodiversity and adaptation to climate change Solutions at the climate-biodiversity-society nexus.

2.2 Collaborative agreement with Learning for Nature

The above proposal was presented to Learning for Nature on October, 29th 2024 via email. In a following email exchange, a collaborative arrangement was established with Learning for Nature to host the three planed RESPIN courses, free of charge.