

NBS EduWORLD - Project Education Learning Unit Template - DRAFT

Prepared by: Prof. Gemma Donnelly-Cox, Dr Conor Dowling, Dr Maria Gallo - Trinity Business School - Last revision 22nd July 2024

Learning Unit (LU) Planning Template - High Level Overview

Name of Learning Unit (LU) Topic		Social Inclusion in and for Nature-Based Solutions					
NBS Context (e.g. urban rural, coastal)	NBS keywords complete checklist at the end of the document	Other Keywords (topics other than NBS) add in Other below	Linked or complementary concepts to NBS (to assist curriculum integration)	Prior learner knowledge of NBS (high, moderate, low/none)	Prior instructor knowledge/ skills/ competences of NBS or equivalent	Key EU NBS resources used (for instructor preparation) include link	Type of LU - lecture, workshop, field trip/site visit
any				moderate	moderate		Lecture
Target academic subject / discipline / professional area or group	Target learners/ groups [age range of learners] if applicable	Min/ Max # of learners (if applicable)	Sector (e.g, professional, higher education, community)	Prerequisites required of learners if applicable (education)	EQF (European Qualifications Framework) level (or Irish NFQ) indicative only	Time for LU (aim is 50 minutes per learning unit)	Course delivery format (e.g. in-person, hybrid, online)
transdisciplinary - social sciences and	undergraduate higher education	n/a	higher education		EQF 6 - Irish NFQ 7/8 Ordinary/H	50 minutes	In-person / On-site
Overall Purpose	Explore the challenges to inclusion in Nature-Based Solutions						
LU Summary (2-3 sentences)	The integration of NBS may exacerbate social exclusion, such as greening projects contributing to increased rents and, as a result, the displacement of residents. Political will and awareness of greening through NBS needs to be in place to enact NBS in communities, which may not be in place or prioritised for disadvantaged communities. This Learning Unit explores the challenges of inclusion and NBS implementation along with the unintended consequences of exclusion that may occur through case study analysis through pathways of inclusion. Learners gain a deeper understanding that NBS needs to involve diversity in community and stakeholder engagement, including						
Learning Outcome 1	Review the factors that may lead to exclusion in NBS implementation.						
Learning Outcome 2	Conduct creative problem solving to consider the benefits and implications of inclusion in and for NBS through case study analysis applying three pathways to NBS and social inclusion.						
Learning Outcome 3	Reflect on the learner's own experience, knowledge or professional context of NBS implementation and how these NBS create aspects of inclusion or exclusion to communities and stakeholders.						
Learning Outcome 4							

Activities and Elements of Learning

Aim that each learning unit include at least 4 activities for an interactive learning experience

Time (duration of activity)	Aims - linked to NBS concepts or topics)	Link to Learning Outcome	Learning Activity [PPT Slide # - if applicable]	Teacher action/activity (Learner action/activity)	Confirmation of learner's learning (assessment of learning)	Link to online NBS resources (and/or academic resources with DOI as relevant)	Offline resources and materials (e.g. post-its,)
00:00:00 (5 minutes)	Present and explore NBS and social inclusion factors	1	Present the case for social exclusion and NBS	ASK: Are there any other issues or factors of social exclusion that may arise because of NBS?	Learners engage in discussion/ respond with post-it notes / on white board	Defective Concrete Blocks Grant Scheme RS20331 / DCC:0004900000890	White board, markers and/or post-it notes or Mentimeter set-up (not required)
00:05 (15 minutes)	Introduce pathways to social inclusion and case studies to test	1, 2	Present Pathways to Social inclusion and NBS and case study analysis	Present pathways and present elements of case study (see PPT slide) - show aspects of social inclusion	Learners discuss any other factors or questions they have related to the social inclusion pathways implemented in the case study.	https://networknature.eu/sites/default/files/uploads/networknature-nbs-knowledgebrief03.pdf https://naturvation.eu/system/files/mainstreaming_nbs_for_social_inclusion.pdf	White board, markers
00:20 (20 minutes)	Learners receive a second case study and analyse it in breakout groups	2	Present the second case study and discuss in breakout groups - each focusing on one of the three pathways to social inclusion areas	Teacher explains case study activity	Learners work in small break-out groups (3-5 learners) for 10 minutes then revert back to the main group to discuss case study findings based on the 3 pathways	https://naturvation.eu/system/files/mainstreaming_nbs_for_social_inclusion.pdf	Post-it notes

00:40:00 (10 minutes)	Review personal and professional context and link to academic discipline of study	3	Reflect on how social inclusion and NBS has a factor on their own personal, professional context and academic studies - Think-Pair-Share activity	Teacher describes the Think-Pair-Share activity - shows some overall themes that emerge	Learners reflect on own learning (and write it down), are paired with one other learner to share their ideas and then share with the main group		White board, markers
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Curriculum integration (how it may connect to curriculum)							
<u>Teaching & Learning Trends employed</u> <u>Highlight all that apply</u> (Source)	Project-based learning: e.g., students work in groups on a research project on greenhouses and the greenhouse effect, alternatives to waste management or investigate what are the views of their peers on climate change.	Peer learning: e.g., students work in groups, evaluate the work of their peers, or develop assessment questions to assess peers.	Problem-based Learning: e.g., students are introduced to a problem and challenged to find a solution together based on the information provided to them.	Student-centred learning: the learning scenarios are not based on classical instruction by the teacher, but they are expected to actively engage students in the lessons.			

<p>21st Century Skills</p> <p><u>Highlight all that apply</u></p> <p>(Source)*</p>	<p>Creativity: e.g., students think of various solutions for promoting a better lifestyle in their communities or encourage greener solutions to their schools' issues.</p>	<p>Information/ Media literacy: students explore examples of NBS, research similar solutions in other communities.</p>	<p>Collaboration: e.g., students work in groups and engage in task division to produce outputs.</p>	<p>Critical thinking: e.g., students learn that a debate on deforestation or climate change does not consist of two opposing camps only but involves many stakeholders with different perspectives.</p>	<p>Communication: e.g., students present their work to the whole class and learn to put forth strong arguments based on facts.</p>
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*Gras-Velázquez, À., Mulvik, I. B., Campodonio, A., Nada, C. & Pocze, B. (2020) *Nature-Based Solutions in education - Validation report, European Commission, August 2020* [accessed on 25/03/2024 <https://files.eun.org/NBS/NBS-pilot-validation-report-final.pdf>] p.8.

<p>GreenComp - European Sustainability Competency Framework</p> <p><u>Highlight all that apply</u></p> <p>(Source) 1- Embodying Sustainability Values and 2 - Embracing Complexity in Sustainability (see pp.13-14)</p>	<p>1.1 Valuing Sustainability: To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values</p>	<p>1.2 Support Fairness: To support equity and justice for current and future generations and learn from previous generations for sustainability</p>	<p>1.3 Promoting Nature: To acknowledge that humans are part of nature; and to respect the needs and rights of other species and of nature itself in order to restore and regenerate healthy and resilient ecosystems</p>	<p>2.1 Systems Thinking: To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.</p>	<p>2.2 Critical Thinking: To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.</p>	<p>2.3 Problem Solving: To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, and to mitigating and adapting to already existing problems</p>
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<p>GreenComp - European Sustainability Competency Framework</p> <p><u>Highlight all that apply</u></p> <p>(Source) 3- Envisioning sustainable futures and 4 - Acting for Sustainability (see pp.13-14)</p>	<p>3.1 Futures Literacy: To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.</p>	<p>3.2 Adaptability: To manage transitions and challenges in complex sustainability situations and make decisions related to the future in the face of uncertainty, ambiguity and risk. generations and learn from previous generations for sustainability</p>	<p>3.3 Exploratory Thinking: To adopt a relational way of thinking by exploring different disciplines, using creativity and experimentation with novel ideas or methods.</p>	<p>4.1 Political Agency: To navigate the political system, identify political responsibility and accountability for unsustainable behaviour, and demand effective policies for sustainability.</p>	<p>4.2 Collective Action: To act for change in collaboration with others.</p>	<p>4.3 Individual Initiative: To identify own potential for sustainability and to actively contribute to improving prospects for the community and the planet</p>
<p>Author and organisation to credit when using the LU</p>	<p>Centre for Social Innovation - Trinity Business School, Trinity College Dublin</p>					

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NBS Keywords Checklist (tick here below)

	<p>Forest Preservation</p>
	<p>Forest Restoration</p>

<p>Teacher Resources (If 'Notes' are used in the related PowerPoint presentation please indicate here)</p>	<p>Learner Resources (e.g. academic articles or links) for advanced reading or review (citation in individual cells)</p>
	<p>https://networknature.eu/sites/d</p> <p>https://naturvation.eu/system/fil</p>

	<i>Forest enhanced management for woodfuel harvest</i>
	<i>Forest Production</i>
	<i>Grassland Preservation</i>
	<i>Grassland Restoration</i>
	<i>Grassland grazing management</i>
	<i>Coastal Preservation</i>
	<i>Coastal Restoration</i>
	<i>Coastal maintenance of slope vegetation</i>
	<i>Maintenance of coastal, floodplain and riverine vegetation</i>
	<i>Agroforestry</i>
	<i>Reduce tillage and carbon restoration practices</i>
	<i>Agricultural intensification</i>
	<i>Urban forests and green spaces</i>
	<i>Urban green roofs</i>
	Climate-change adaptation and mitigation
x	Sustainable cities/ sustainable communities
	Re-naturing cities/ re-naturing communities
x	Urban regeneration
	Coastal resilience
	Multi-functional watershed management
	Enhancing the insurance value of ecosystems
	Sustainability of the use of matter and energy
	Sustainable development
x	Innovating with nature
	Biodiversity
	Nature-based enterprises
	Nature-based entrepreneurship
	NBS and new business and investment models
	Citizen participation, stakeholder/community consultation
	Disaster risk reduction
	Risk management and resilience
x	NBS policy development and implementation
	NBS research
	Green infrastructure
	Green finance / sustainable finance
x	Ecosystem services and ecosystem-based approaches

x	Rural municipal/local authority/government planning	
x	Coastal municipal/local authority/government planning	
x	Urban municipal/local authority/government planning	
x	Improving well-being and quality of life	
	NBS and new business and investment models	
	NBS and CCAM (Connected, Cooperative and Automated Mobility)	
	Other 1: (Please specify)	social inclusion
	Other 2: (Please specify)	social exclusion
	Other 3: (Please specify)	

Keywords Source 1: United Nations Environment Programme (2020). *The Economics of Nature-based Solutions: Current Status and Future Priorities*. United Nations Environment Programme Nairobi., p.5. (keywords above in italics)

Keywords Source 2: Faivre N, Fritz M, Freitas T, de Boissezon B, Vandewoestijne S. (2017)'Nature-Based Solutions in the EU: Innovating with nature to address social, economic and environmental challenges.' *Environ Res.* 2017 Nov;159:509-518. doi: 10.1016/j.envres.2017.08.032. Epub 2017 Sep 8. PMID: 28886502.

Keywords Source 3: European Commission (2015). *Towards an EU Research and Innovation policy agenda for Nature-Based Solutions & Re-Naturing Cities: Final Report of the Horizon 2020 Expert Group on 'Nature-Based Solutions and Re-Naturing Cities' Full Version*. Luxembourg: Publications Office.

