

NBS EduWORLD - Project Education Learning Unit Template

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Learning Unit (LU) Planning Template - High Level Overview

Name of Learr Topic	ning Unit (LU)			-	-	-	
NBS Context (e.g. urban rural, coastal)	NBS keywords <u>complete</u> <u>checklist at</u> <u>the end of the</u> <u>document</u>	Other Keywords (topics other than NBS) <u>add in Other</u> <u>below</u>	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, case study
any				low	low		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)
	undergraduate higher education, also	20	Professional, higher education and	Prior basic knowledge of NbS and some		50	Online
Overall Purpose	To understand the	ne importance o			estoration and nature preservation.		
LU Summary (2-3 sentences)	This LU provides a Brief dive into the world of Upscaling and elaborates the differences between the different scaling methods used, scaling out and scaling deep for example. The unit is meant to shine light on the UbN Step 7 on Upscaling for local governments as well as regional entities to think of ways on how to upscale NbS and what to consider when doing so. The role of standards is also highlighted here.						
Learning Outcome 1	The 3 Scaling	The 3 Scaling approaches for NbS: Scaling out, scaling deep and scaling up					
Learning Outcome 2	Understand the	Understand the importance of Upscaling NbS to reverse ecosystem degradation and support nature restoration					
Learning Outcome 3	Learn about the	IUCN Standard	s – NbS Principle	s and the importan	ce of standards for applying NbS a	at wider scale	
Learning Outcome 4	Learn about tl	ne challenges a	nd think of solutio	ns for upscaling N	bS		

Activities and Elements of Learning

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

Time (duration of activity, typically 50mins) 00:00 (5mins)	to NBS concepts or topics) Gauge the learners level of understanding of scales for NbS.		Learning Activity [PPT Slide # - if applicable] Mentimeter exercise	answers	Confirmation of learner's learning (assessment of learning) Learners respond with their knowledge of upscaling and learn from others responses.	Link to online NBS resources	Offline resources and materials (e.g. post- its,)
00:05 (10mins)	Enrich the learners understanding and knowledge on Upscaling and role of Standards etc.	1,2,3,4		Show presentation (slides 4-11)	A brief overview of relevant aspects with regards to upscaling will be presented that the learners can ask clarifying questions for, by raising hand or writing in the chat.		

00:10 (20mins)	Encourage	1,2,3,4	Learners to go	moderate the	Peer-to-peer learning and	
	collaboration		in 2 breakout	sessions	exchange.	
	and discussions		groups and	independently		
	in smaller		discuss with	with another staff		
	groups on the		peers either on	or learner		
	topic of		the role of	(Breakout group		
	1)Standards		standards or the	A and B)		
	and		challenges and			
	2)challenges for		ways to tackle			
	upscaling		them for			
			upscaling			

NBS- Application of Curriculum, Trends and Skills

			<u> </u>	
Curriculum				
integration (how				
it may connect				
to curriculum)				
	Project-based			
	learning: e.g.,			
	students work			
	in groups on a			
	research			Student-
	project on		Problem-based	
	greenhouses	Peer		learning: the
	and the	learning: e.g.,		learning
Teaching &	greenhouse	students work	introduced to a	scenarios are not
Learning	effect,	in groups,	problem and	based on
<u>Trends</u>	alternatives to	evaluate the	challenged to	classical
employed	waste	work of their	find a solution	instruction by the
	management or		together based	teacher, but they
Highlight all	investigate what		on the	are expected to
that apply	are the views of		information	actively engage
		questions to	provided to	students in the
(Source)	climate change.	assess peers.	them.	lessons.

21st Century Skills <u>Highlight all</u> that apply	better lifestyle in their communities or encourage greener	examples of NBS, research similar	Collaboration: e.g., students work in groups and engage in task division to	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	Communication: e.g., students
that apply	5				
			produce		present their work to the whole
	their schools'		outputs.	different	class and learn to put forth strong
(<u>Source</u>)*	issues.	communities.		perspectives.	arguments based on facts.

*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.

						0.0 Droklam
						2.3 Problem
			1.2 Dromoting			Solving: To
			1.3 Promoting			formulate current or
GreenComp -			Nature: To			potential challenges
European	1.1 Valuing		acknowledge	2.1 Systems		as a
Sustainability	Sustainability:		that humans are	Thinking: To		sustainability
Competency	To reflect on		part of nature;	approach a		problem in terms of
Framework	personal	1.2 Support	and	sustainability		difficulty, people
Highlight all	values; identify	Fairness: To	to respect the	problem from all		involved, time and
that apply	and explain	support equity	needs and	sides; to		geographical scope,
	how values vary	and justice for	rights of other	consider time,	2.2 Critical Thinking: To assess	in order to
(Source) 1-	among people	current and	species and	space and	information and arguments,	identify suitable
Embodying	and over time,	future	of nature itself	context in order	identify	approaches to
Sustainability	while	generations	in order to	to understand	assumptions, challenge the	anticipating and
Values and 2 -	critically	and learn from	restore and	how elements	status quo, and reflect	preventing problems,
Embracing	evaluating how	previous	regenerate	interact within	on how personal, social and	and to mitigating and
Complexity in	they align with	generations	healthy and	and	cultural backgrounds	adapting
Sustainability	sustainability	for	resilient	between	influence thinking and	to already existing
(see pp.13-14)	values	sustainability	ecosystems	systems.	conclusions.	problems

		3.2				
		Adaptability:				
		To manage				
		transitions and				
		challenges in				
		complex				
	3.1 Futures	sustainability				
GreenComp -	Literacy: To	situations and				
European	envision	make	3.3 Exploratory			
Sustainability	alternative	decisions	Thinking: To			
Competency	sustainable	related	adopt a	4.1 Political		
Framework	futures by	to the future in	relational way of	Agency: To		
Highlight all	im agining and	the face of	thinking by	navigate the		
that apply	developing	uncertainty,	exploring	political system,		
	alternative	ambiguity	and linking	identify political		4.3 Individual
(Source) 3-	scenarios and	and risk.	different	responsibility and		Initiative: To identify
Envisioning	identifying the	generations	disciplines,	accountability for		own potential for
sustainable	steps needed to	and learn from	using creativity	unsustainable		sustainability and to
futures and 4 -	achieve a	previous	and	behaviour, and		actively contribute to
Acting for	preferred	generations	experimentation	demand effective	4.2 Collective Action: To act for	improving prospects
Sustainabilty	sustainable	for	with novel ideas	policies for	change in collaboration with	for the community
(see pp.13-14)	future.	sustainability	or methods.	sustainability.	others.	and the planet
	Shreya Utkarsh	(ICLEI Europe)				
Author and						
organisation to						
credit when						

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using the LU

NBS Keywords Checklist (tick here below)	References for lea used for syllabus reading po	s or further
Forest Preservation	Resource Citation	Link
Forest Restoration		
Forest enhanced management for woodfuel harvest		
Forest Production		
Grassland Preservation		
Grassland Restoration		
Grassland grazing management		
Coastal Preservation		
Coastal Restoration		

	Coastal maintenance of slope vegetation						
	Maintenance of coastal, floodplain and riverine vegetation						
	Agroforestry						
	Reduce tillage and carbon restoration practices						
	Agricultural intensificiation						
	Urban forests and green spaces						
х	Urban green roofs						
	Climate-change adaptation and mitigation						
	Sustainable cities/ sustainable communities						
х	Re-naturing cities/ re-naturing communities						
	Urban regeneration						
	Coastal resilience						
	Multi-functional watershed management						
	Enhancing the insurance value of ecosystems						
	Sustainability of the use of matter and energy						
х	Sustainable development						
	Innovating with nature						
х	Biodiversity						
	Nature-based enterprises						
	Nature-based enterpreneurship						
	NBS and new business and investment models						
х	Citizen participation, stakeholder/community consultation						
	Disaster risk reduction						
	Risk management and resilience						
х	NBS policy development and implementation						
	NBS research						
	Green infrastructure						
	Green finance / sustainable finance						
	Ecosystem services and ecosystem-based approaches						
	Rural municipal/local authority/government planning						
	Coastal municipal/local authority/government planning						
	Urban municipal/local authority/government planning						
	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) NbS Standards						

Other 2: (Please specify)	Upscaling of NbS
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.