

A PROactive approach for COmmunities to enAble Societal Transformation



## Task 7.5: Clustering with Stakeholders Towards the Community Sustainability Platform 2024-33 Robert Kenward and Julie Ewald reke@ceh.ac.uk & jewald@gwct.org.uk

https://pro-coast.eu



## 20 Partners in 14 Countries 9 Case Studies in Coastal Ecosystems

Interdisciplinary experts, especially social scientists, manage Case Studies very 'hands-on'; results to be scaled up on a <u>Community Sustainability Platform</u> with *clusters of organisations across different societies*.

## Objectives

- Gather and synthesise knowledge
- Improve community co-participation
- Integrate local knowledge into policy
- Promote adaptive management
- Reverse biodiversity loss









Simplify complex concepts and translate into a multitude of languages.

- Build networks to benefit local communities by creating "learning communities" for long-lasting impact and long-term knowledge exchange.
- Activate change agents to promote transformation of attitudes & behaviour.
- Sounds like what ESUG, IUCN, IAF & FACE have been doing already?

Countries in which clubs are members of the International Association for Falconry and Conservation of Birds of Prey



IAF has already been working with ESUG, is one of the largest clusters of organisations across different societies worldwide, and now has an MoU with IUCN (of which IAF has been a member since 1996) for Global-with-Local networking.



Global-with-local multilingual networks have been the preserve of rich corporates (the 'FANGS'). Facebook & Twitter (now X) enable social networking within cultures, but our networks also work to rapidly converge concepts and facts across cultures, which can otherwise take years - which we don't have for climate change!)

Our networking brings together young & old, scientist & practitioner, as volunteers in socio-technology that must remain strong in the civic sector to ensure open operation and information unhindered by commercial/political constraints. Glocal = Top-Down with Bottom-Up.

Such networking is the perfect basis for a Community Sustainability Platform and why <u>www.Naturalliance.org</u> is named as a model for Pro-Coast. The networking components are already in place and in the first 11 languages. Pro-Coast



#### What sort of Earth will our children inherit?

Visit <u>www.pro-</u> <u>coast.eu</u>

Less pollution? Less plastic? Less over-fishing? Less warming? More nature? We need to change how we treat the planet and we need to do it together. Pro-Coast is part of a network of projects to rebuild nature. It joins up many projects to help you make changes where you live.

About Pro-Coast
Partners

Home

Where we work Historically

Linked networks

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Effective transfer of grassroots knowledge and local data.

- In exchange, provide tools to make conservation through sustainable use not only beneficial for practitioners (income, jobs) *but also enjoyable*.
- Create a Reciprocal Environmental Decision Support System

Previous case studies have shown that local communities enjoy mapping.



#### Here for grouse habitat mapped over an aerial photograph



# Such mapping can lead to predictive modelling to support decisions by local people ...



# e.g. predictive modelling software to restore game habitats with improved carbon uptake or other Nature-based Solutions

🔞 Ranges 9 v0.10. For the Analysis of Tracking and Location Data, Anatrack Ltd.								
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# Animal populations can be predicted from habitat maps, here for buzzards tracked with radio-tags





### Land Cover Map of Great Britain enabled Agent-Based Models of how buzzards settle in landscape by using habitat to predict home ranges

• **Species:** 10-day radio-tracking, 72 Common Buzzards during 1990-1995 in southern UK.

Kenward et al. 2001. Ecology 82:1905-1920

 MAP: Landsat, 1990. Resolution: 25x25m. Overall classification accuracy: 71% (unevenly distributed among land cover classes)

Fuller et al. 1994, *Photogrammetric Engineering & Remote Sensing* 

 RADA: Range Area Dependence Analysis estimates resource/habitat requirements from relationship of home range structure and placement within the landscape.

Kenward et al. 2018, *PLoS ONE 13:* e0206354.

Arraut et al. 2021, *Proceedings of the Royal* Society B





Pro-Coast surveyed 48 projects seeking social change in EU Horizon Programme. Only two aimed strongly for multilingual tools.

Table 1. Number of projects scoring 0, 1, or 2 for each criterion

Criterion	Score 0	Score 1	Score 2
Social change	2	26	20
Case studies	18	17	13
Tools and processes	3	14	31
Coastal	34	10	4
Multilingual	34	12	2

Still few predictive models for local level – just one for birds in gardens!

Most Pro-Coast Case Studies have gardens, so the first Reciprocal **Environmental Decision** Support is for gardens. Version 1 (GardenREDS) will predict where house sparrows will be. **Reports on model** accuracy will be used to improve accuracy.

Garden carbon

Garden sparrow

In July 2024

	Scale	ItemSoftware/explanation <with link=""></with>		gardenREDS 1.0	Version 2(B)	Version 3-4(C-D)
)		1	Easily installed on appropriate platforms for	web application	web application	web application
	ic		field (e.g. Android, IUS) lab and office use			mapper install?
	ner	2	Usable (appropriate training), reliable and easily	ves	ves	ves
	Ge		fixed if glitches occur	,	,	,
		3	Secure for personal data (GDPR etc), payments	yes but not yet	yes but not yet	VAS
			and in operation (viz hacking)	for payments	for payments?	yes
		4	Can work in scripts for any languages, including	NOS	yes	yes
	u		RTL text, with translation from expert volunteers	yes		
	civi	5	Is or can become OpenSource	yes	yes	yes
	cal		Cost-appropriate: free at basic level but can	charges for	charges for	
	ole	6	accept payments for extras (per	royalties but	royalties but	yes
	0		annum/session/analysis)	not this version	not this version	
•		7	Able to specify ownership for all data	yes	yes	yes
		8	Handles spatial (raster, vector) data, can include	N OS		
	specific		ecological/socio-economic (and other meta)data	yes	yes	yes
		9	Accomodates entry of user shapes and	Noc	Noc	Noc
			metadata	yes	yes	yes
	ger	10	Stores data reliably on portable devices until	yes but maybe	naybe yes but maybe	
	naę		cloud upload available	not this version	not this version	yes
	ma		Interfaces with required calculation engines, can			
	bne	11	display uncertainty of estimates	yes	yes	yes
	Ē			yes but not this		
		12	Outpute to or provides 3D visualisation tools	version	maybe	yes
	Farmland	Α	Crop productivity data (mpatts vield)	NO		
		В	Integrated pest management	NO		
		С	Hydrology (e.g. maps N risk, water-log, erosion)			Maybe (e.g. N)
		D	Soil/vegetation carbon estimates, biota emission	Garden carbon	Other	Carbon widely
		Е	Biodiversity planning data	Garden sparrow	garden models	Farm Species
				In July 2024	By end of 2024	During 2025-26



During 2025-6 we will also start modelling for wider areas, including farmland.

We would like to model Grey Partridge for Perdixnet.

We hope GWCT and IAF will help with testing of GardenREDS onward.

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			and in operation (viz hacking)	for payments	for payments?	yes
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	0	4	RTL text, with translation from expert volunteers	yes	yes	yes
	civi	5	Is or can become OpenSource	yes	yes	yes
	Glocal	6	Cost-appropriate: free at basic level but can	charges for	charges for	
			accept payments for extres (per	royalties but	royalties but	yes
			annum/session/analysis)	not this version	not this version	
		7	Able to specify ownership for all that	yes	yes	yes
	nager specific	8	Handles spatial (raster, vector) data, con include	Noc	Noc	Nec
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	lma	11	Interfaces with required calculation engines, can			
	and		display uncertainty of estimates	yes	yes	yes
		12		yes but not this		yes
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	Farmland	А	Crop productivity data (inputs, yield)	NO		
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		С	Hydrology (e.g. maps N risk, water-log, erosion)	NO		Mayb, (e.g. N)
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