
ECOSYSTEM SERVICES PROVIDED BY AGRICULTURAL WETLANDS

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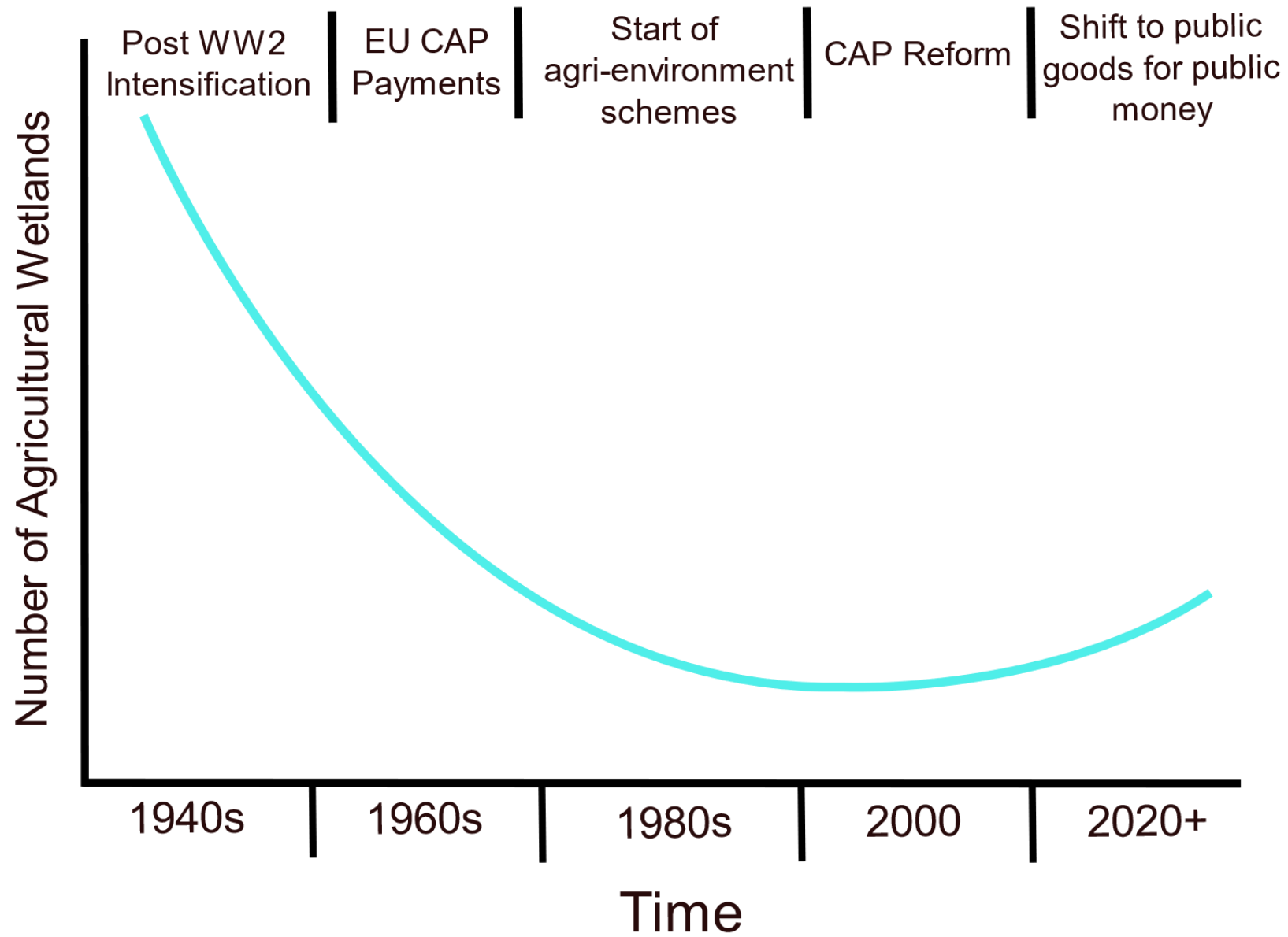


Scottish
Government
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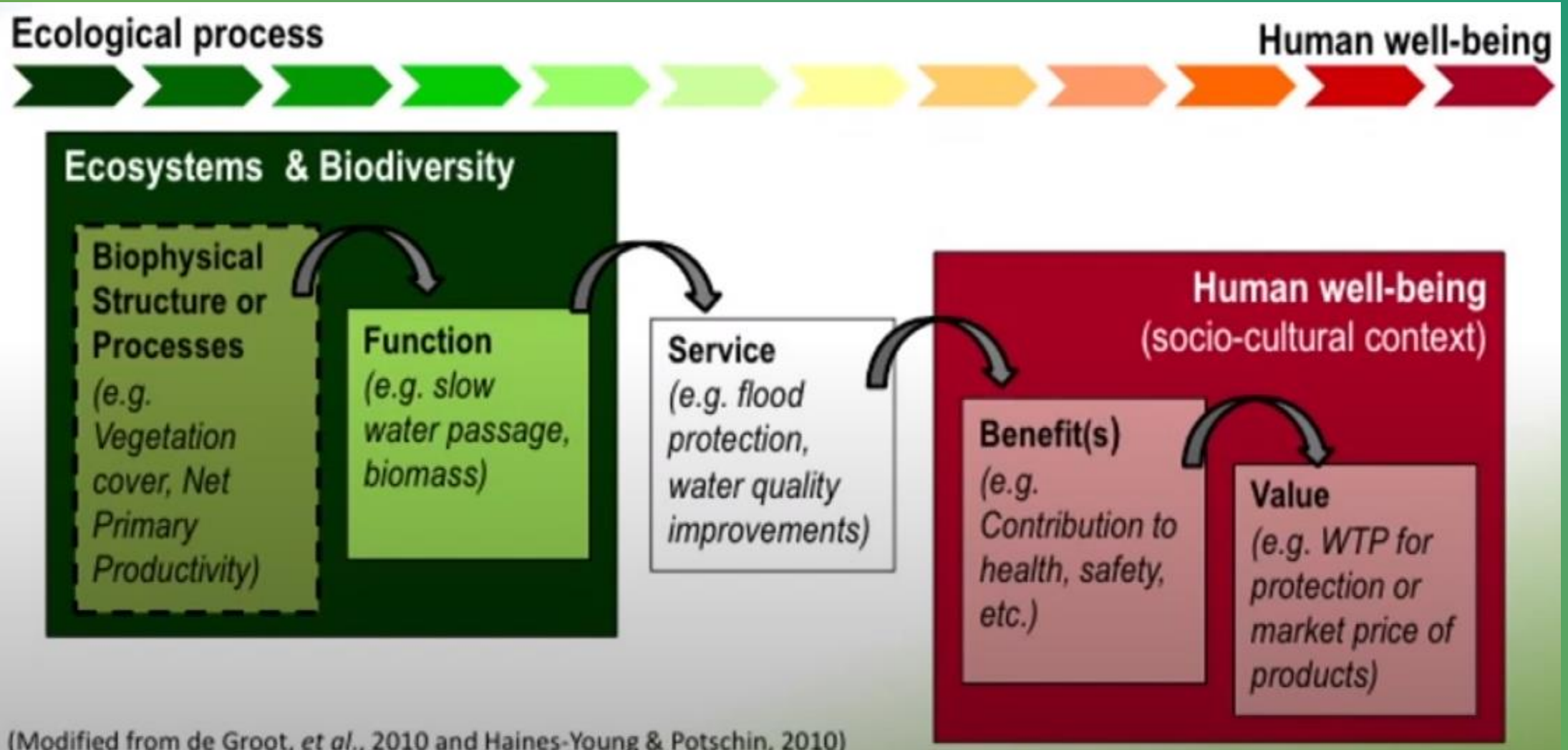
Hydro Nation Scholars Programme



Scottish Funding Council
Comhairle Maoineachaidh na h-Alba



What are ecosystem services?



What **range** of ecosystem services

+ • do agricultural wetlands provide

◦ and what factors **drive variation**

in these services?

Method



Drone mapping



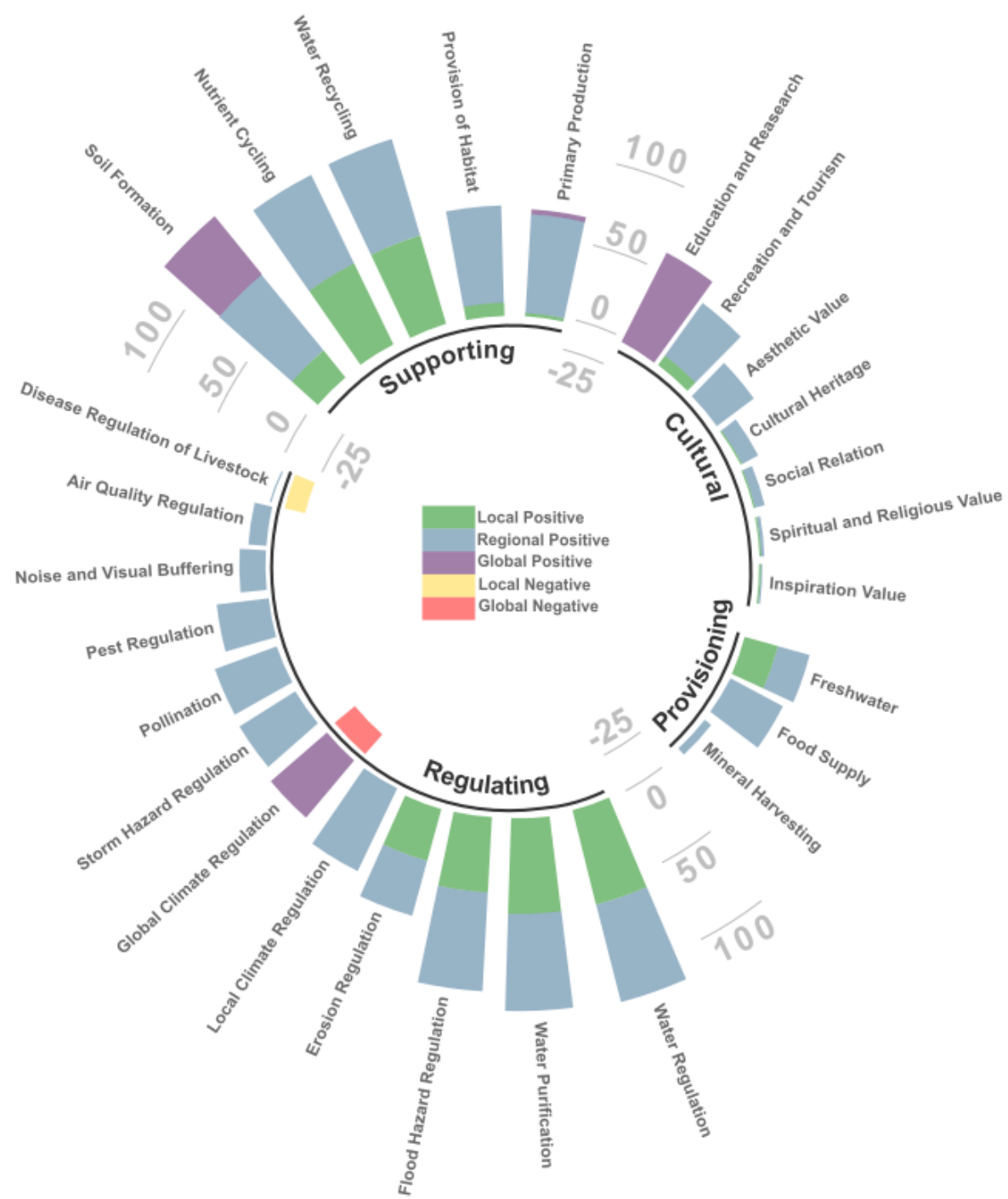
Land use data

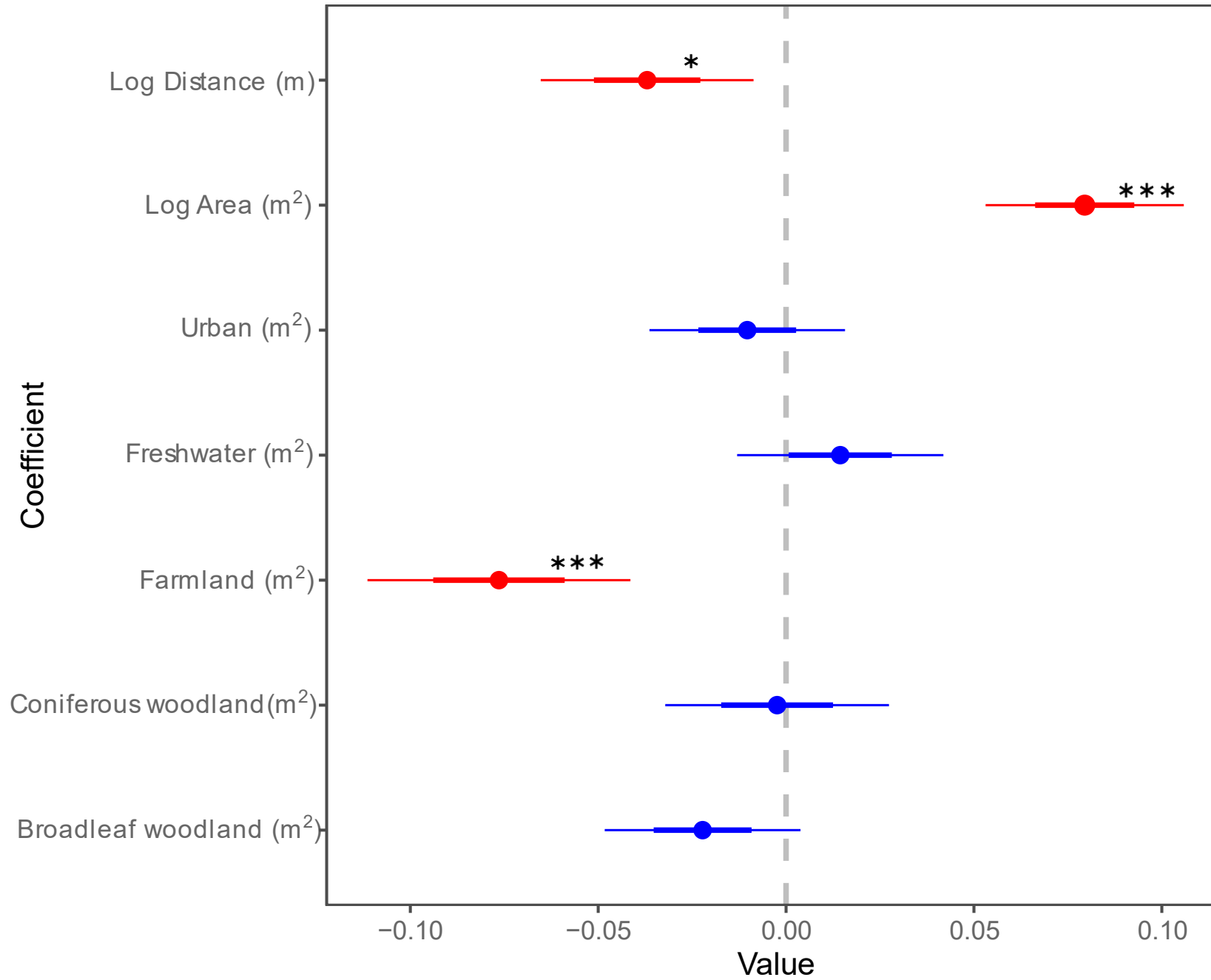


Rapid assessment of wetland ecosystem services (RAWES)

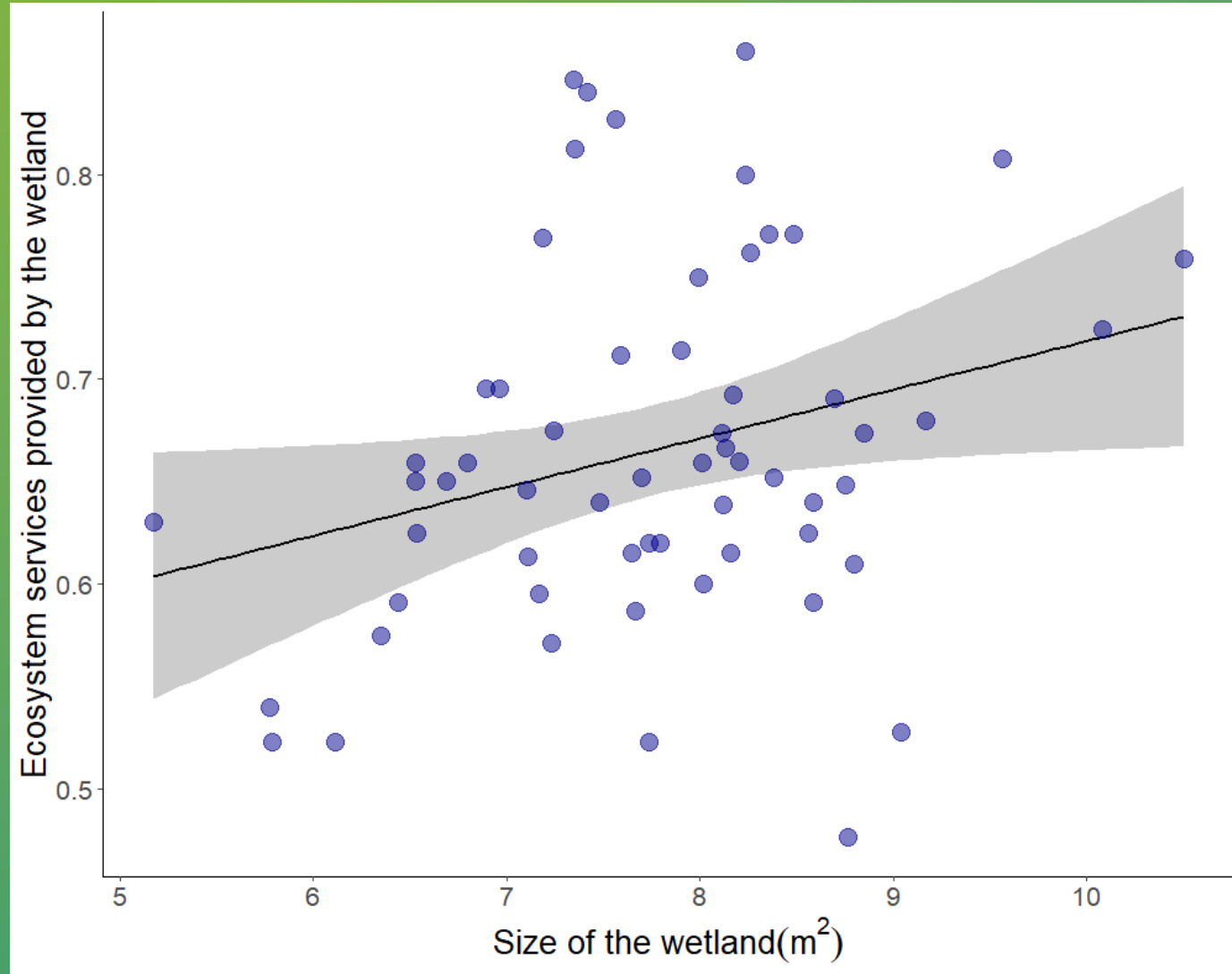


Category	Service	Scale and value			Environmental service index (ESI)
		local	regional	global	
Provisioning	Fresh water	0.5			ESI 0.5
	Food	0.5			
	Fuel				
	Fibre				
	Genetic resources				
	Natural medicines or pharmaceuticals				
	Ornamental resources				
	Clay, mineral, aggregate harvesting				
	Energy harvesting from natural air and water flows				
Regulating	Air quality regulation				ESI 0.6
	Local climate regulation	0.5			
	Global climate regulation			1	
	Water regulation	0.5	1		
	Flood hazard regulation	0.5	1		
	Storm hazard regulation	0.5			
	Pest regulation	0.5			
	Disease regulation - human				
	Disease regulation - livestock	-0.5			
	Erosion regulation	0.5	1		
	Water purification	0.5	1		
	Pollination	0.5			
	Salinity regulation				
	Fire regulation				
Noise and visual buffering	0.5				
cultural	Cultural heritage				ESI 0.5
	Recreation and tourism	0.5			
	Aesthetic value	0.5			
	Spiritual and religious value				
	Inspiration value				
	Social relation				
	Educational and research			0.5	
supporting	Soil formation	1		1	ESI 0.75
	Primary production	0.5			
	Nutrient cycling	0.5	1		
	Water recycling	0.5	1		
	Provision of habitat	0.5			

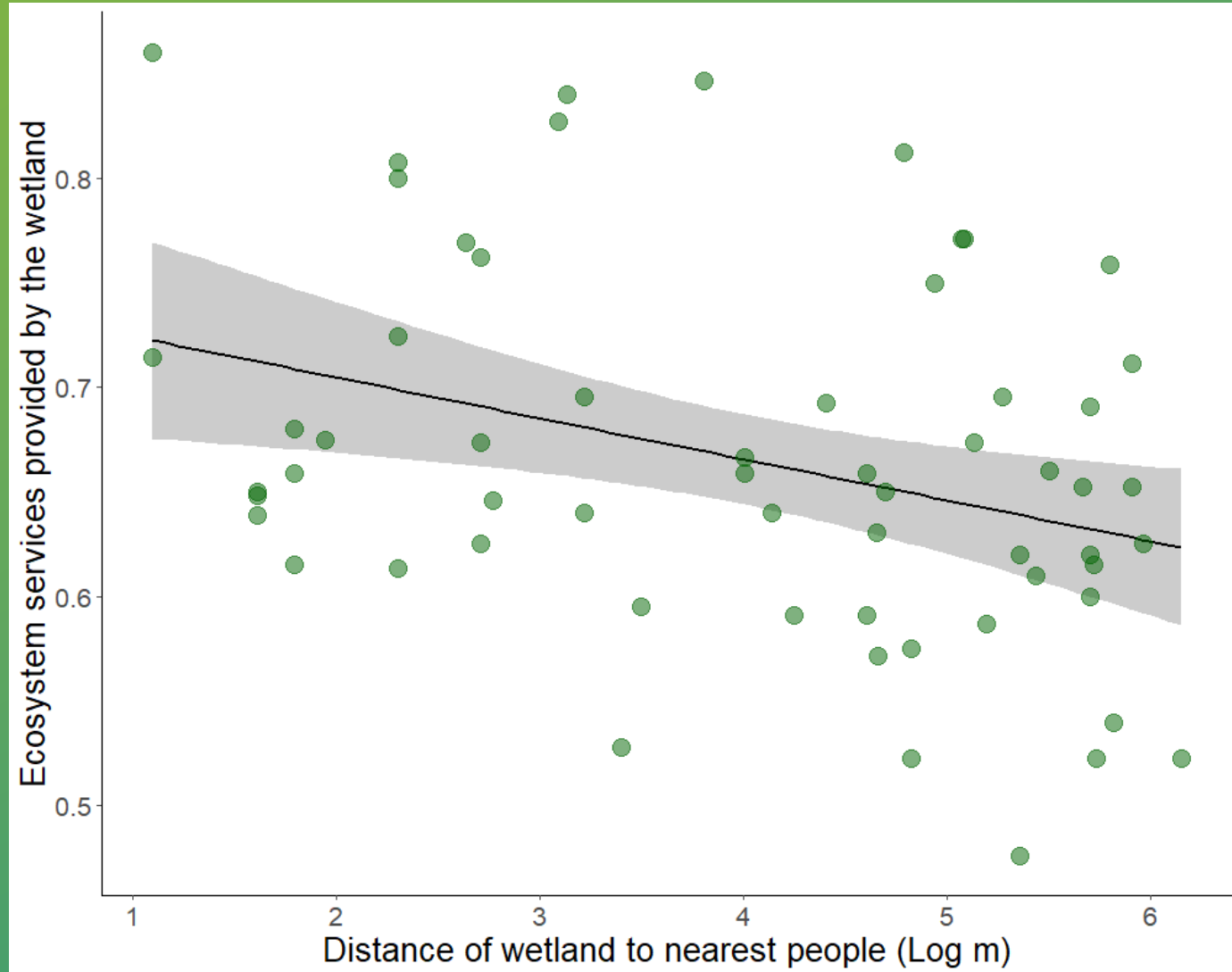




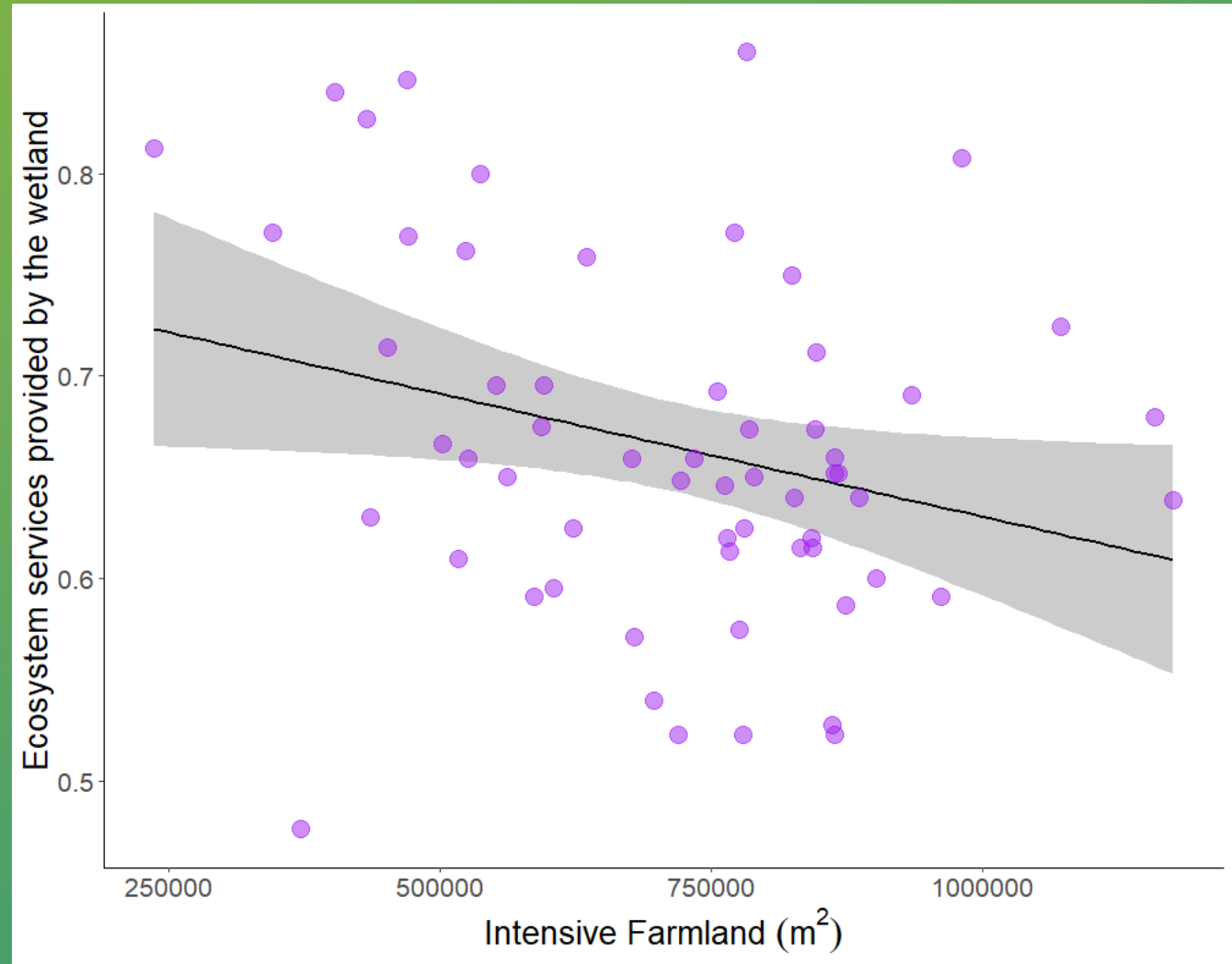
**BIGGER
IS
BETTER**



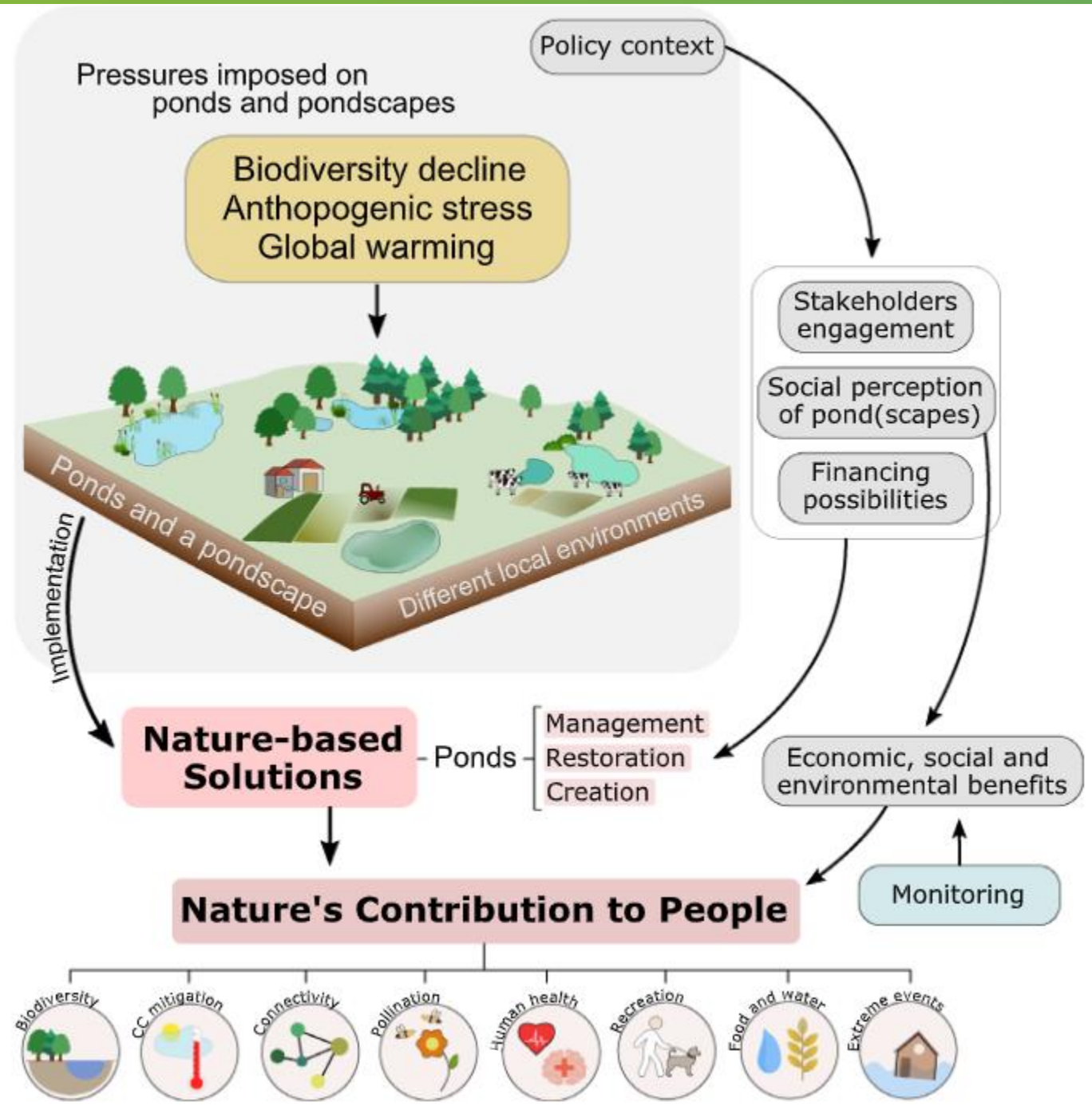
**CLOSER
IS
BETTER**

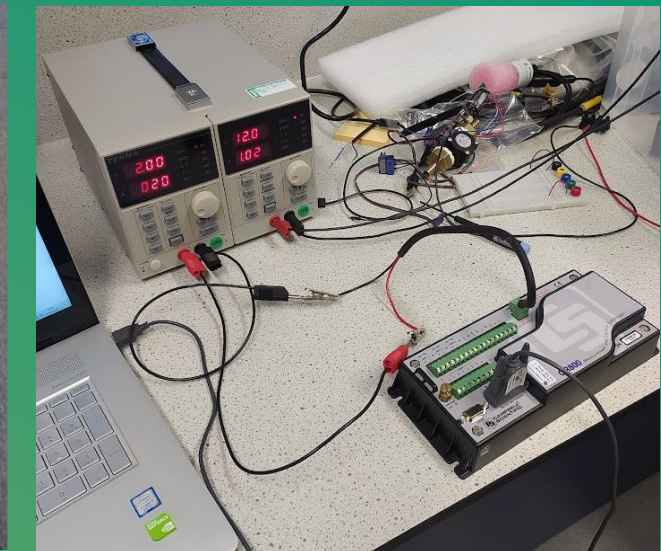


**LESS INTENSIVE
FARMLAND =
MORE ECOSYSTEM
SERVICES**



SO WHAT?





FUTURE WORK



+

o

Questions?

