



Environmental Pressures

In an Ecosystem Accounting context

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Highlights



PEF + IPBES pressures covered by SEEA CF & EA

Pressure	SEEA CF					SEEA EA			
	Energy	Water	Air em.	Water em.	Waste MFA	Extent	Condition	Biodiversity	ES
PEF Land use						X			
Depletion of abiotic res.: Minerals and metals					X				
Depletion of abiotic res.: Fossil fuels	nat.res. Inputs				X				
Water use		Sources							X
Human toxicity			X	X	X				
Eco-toxicity			X	X	X				
Eutrophication: Freshwater			(N,P)	N,P			X		
Eutrophication: Marine			(N,P)	N,P			X		
Eutrophication :Terrestrial			(N,P)	N,P			X		
Ozone depletion			HFCs						
Photochemical ozone formation			NOx						
Particulate matter			PM						
Ionising radiation			?	?	?				
Climate change			GHG						
Acidification							X		
IPBES Biosphere integrity									X
Invasive Alien Species									X

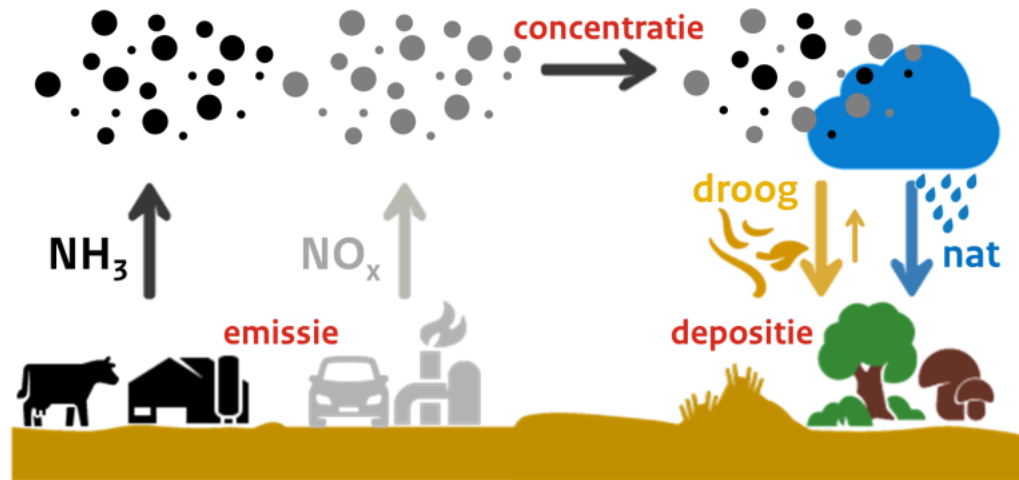
*) PEF = Product Environmental Footprint impact categories (EU LCA policy)



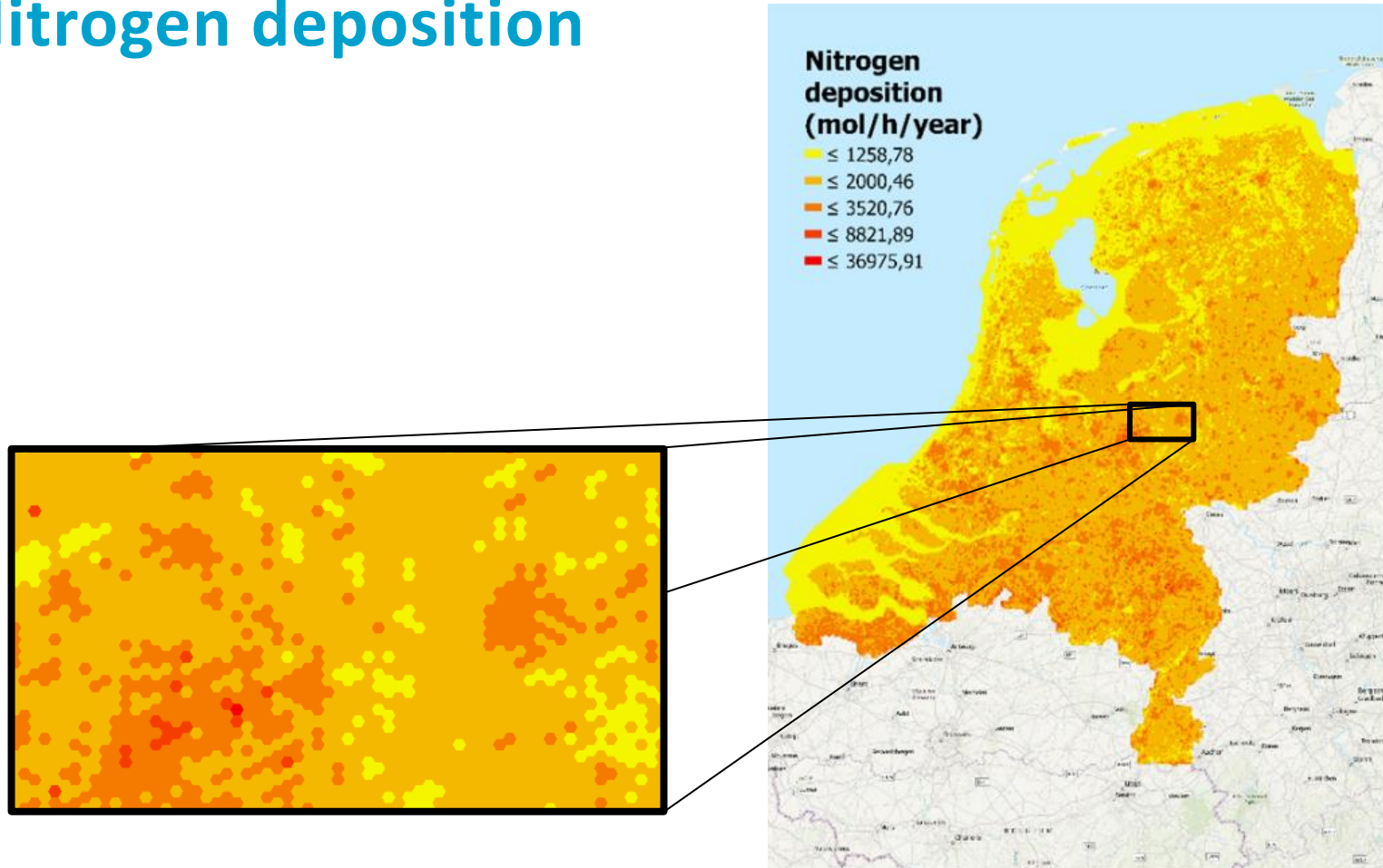
Conclusions

- Various typologies for environmental pressures available
- These are *reasonably well* aligned
- Information on these pressures is *largely* (?) covered by SEEA CF and EA

Example: Nitrogen on Natura 2000



Nitrogen deposition



Nitrogen supply

by sector

Year	Sector									Total
	Agriculture	Industry	Transport Road	Shipping	other	Other	Correction	Import		
2020	2095	115	242	171	79	299	275	1591	4866	
2021	2051	114	239	163	78	297	275	1591	4808	

Year	Sector									Total
	Agriculture	Industry	Transport Road	Shipping	other	Other	Correction	Import		
2020	43%	2,4%	5,0%	3,5%	1,6%	6,1%	5,6%	33%	100%	
2021	43%	2,4%	5,0%	3,4%	1,6%	6,2%	5,7%	33%	100%	

Nitrogen deposition

by ecosystem type and sector

Sector	Ecosystem Type										Total
	Forest	Grassland	Heathland	Wetlands	Lakes	Streams	Coastal	Marine	Other		
Agriculture	31%	2%	11%	6%	1%	1%	5%	3%	0%	60%	
Industry	4%	0%	1%	1%	0%	0%	1%	1%	0%	8%	
Transport	Road	3%	0%	1%	0%	0%	0%	0%	0%	5%	
	Shipping	1%	0%	0%	0%	0%	0%	1%	0%	3%	
	Other	1%	0%	0%	0%	0%	0%	0%	0%	2%	
Other	Abroad	4%	0%	1%	1%	0%	0%	1%	1%	9%	
	Domestic	3%	0%	1%	1%	0%	0%	1%	0%	6%	
Other	Abroad	1%	0%	0%	0%	0%	0%	0%	0%	1%	
Correction	1%	0%	0%	0%	0%	0%	3%	1%	0%	6%	
Total	48%	4%	16%	9%	2%	1%	14%	6%	0%	100%	



Conclusions (2)

- Pressure accounts can be set up as ‘mirror images’ of supply-use tables
 - Explicitly linking pressures to economic sectors and ecosystem types
 - But not necessarily economic sectors to ecosystem types
- Lot’s of issues, though
 - Not all pressures are ‘conservative quantities’
 - Sometimes complex spatial processes linking activities, pressures and impact on ecosystems.





Facts that matter