Ecosystem services in SEA of spatial policies

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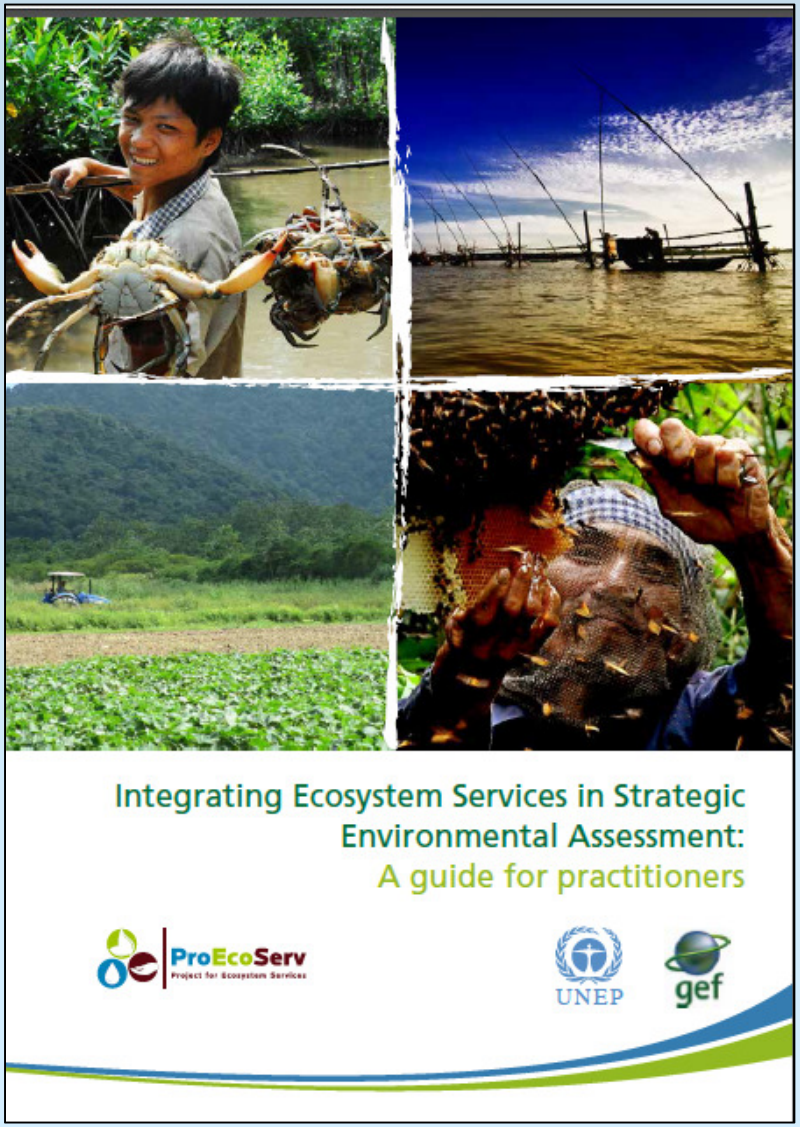
COMMISSION

4. A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, human health, fauna, flora, biodiversity and the ecosystem services it provides, land (land take), soil (organic matter, erosion, compaction, sealing), water (quantity and quality), air, climatic factors, climate change (greenhouse gas emissions, including from land use, land use change and forestry, mitigation potential, impacts relevant to adaptation, if the project takes into account risks associated with climate change), material assets, cultural heritage, including architectural and archaeological ones, landscape; such a description should include the inter-relationship between the above factors, as well as the exposure, vulnerability and resilience of the above factors to natural and man-made disaster risks.

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment


WORLD
RESOURCES
INSTITUTE
WEAVING ECOSYSTEM SERVICES INTO IMPACT ASSESSMENT
A Step-By-Step Method | Version 1.0
FLORENCE LANDSBERG, JO TREWEEK, M. MERCEDES STICKLER,
NORBERT HENNINGER, ORLANDO VENN
WRI.ORG


Integrating Ecosystem Services in Strategic Environmental Assessment:
A guide for practitioners
ProEcoServ
Project for Ecosystem Services
UNEP
gef

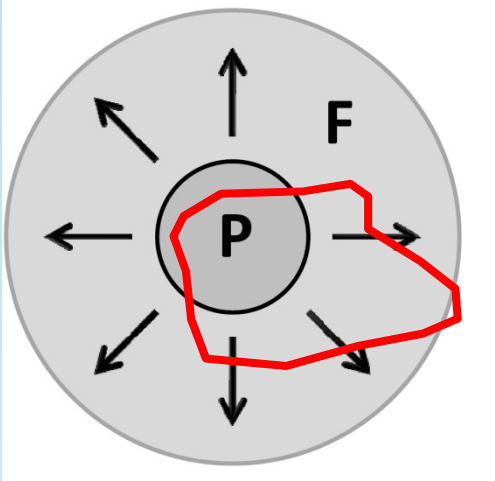
- Strenghts and weaknesses (e.g., Baker et al., 2013)
- Enablers and barriers (e.g., Russel et al., 2014)

Impact assessment practice

- Information on ecosystem services is often very limited
- Difficult to use it to steer decisions
- Difficult to match impacts on ecosystem services with specific, appropriate mitigation actions

(Rosa and Sanchez, 2015; Mandle et al., submitted)

Spatial relationships

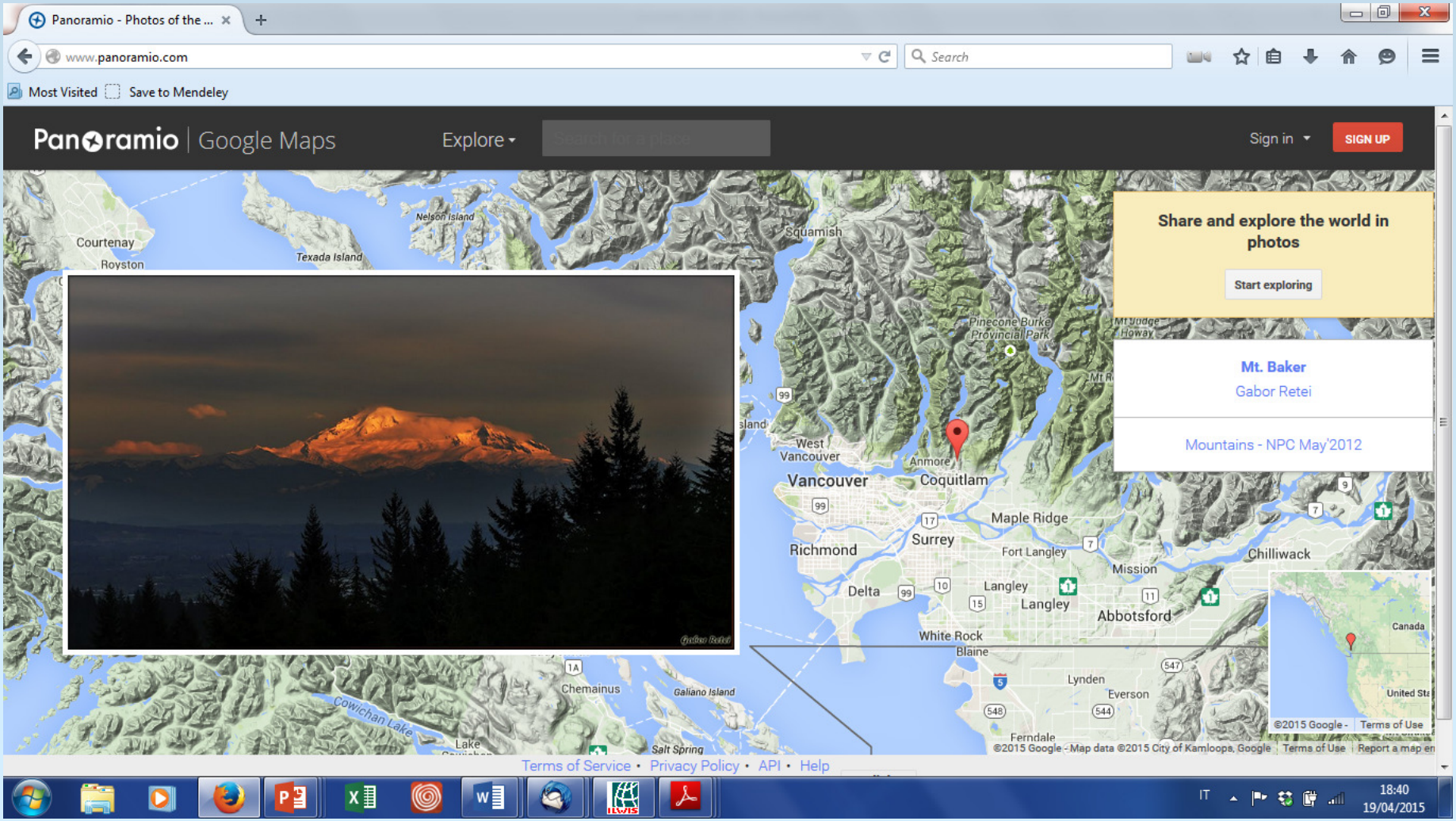


P: Area of production of ES

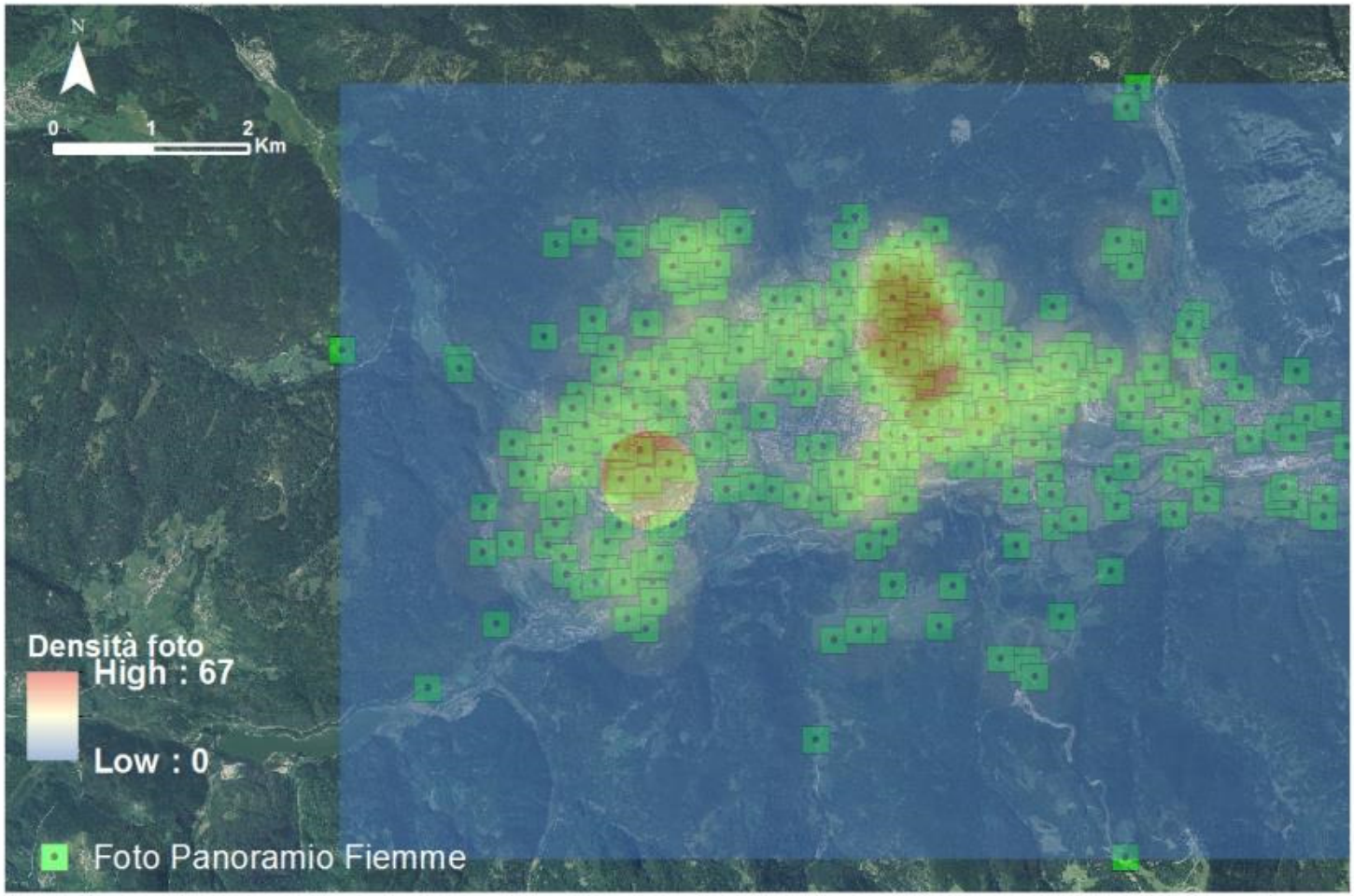
F: Area of fruition of ES

Boundary of the project/plan/policy region

Geo-social media and crowd-sourcing

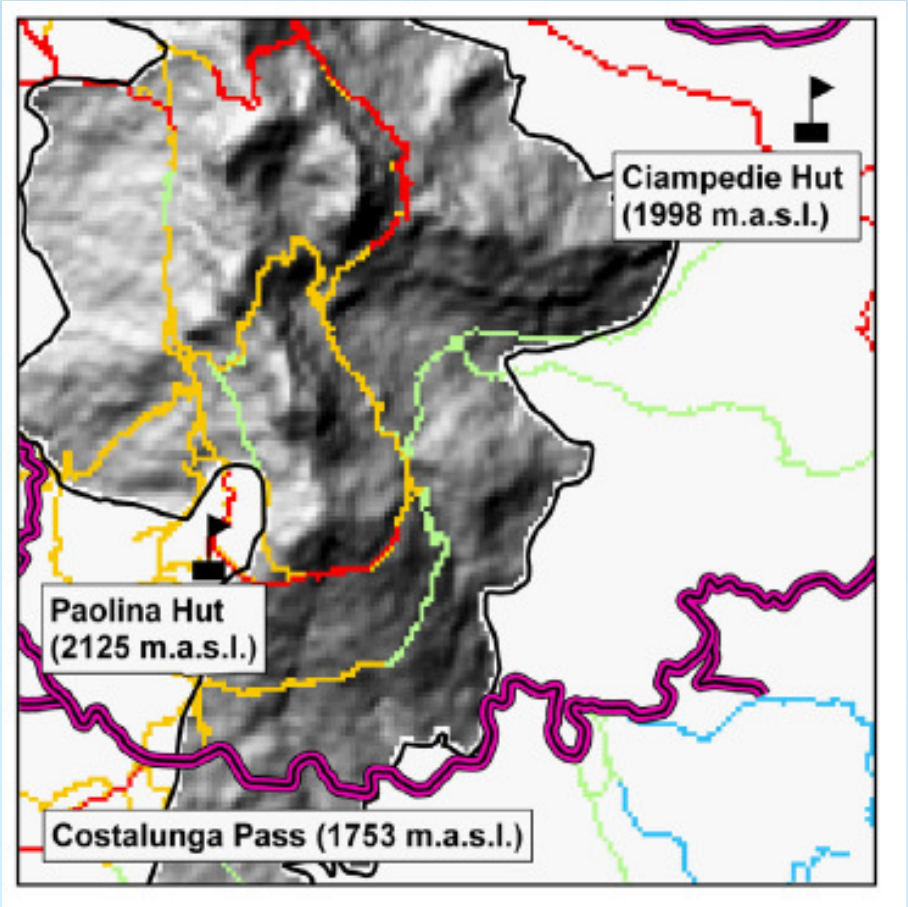


Density of pictures



Geneletti and Scolozzi, 2015

Number of beneficiaries of cultural ecosystem services



0 - 100 visitors/day
101 - 300 visitors/day
301 - 600 visitors/day
601 - 1000 visitors/day
> 1000 visitors/day

Orsi and Geneletti, 2014

Option A ☐	Option B ☐	Option C ☐	Option D ☐
I drive to Passo Costalunga	**I take the bus Vigo-Passo Costalunga** or **I take the bus Carezza-Passo Costalunga**	**I take the cable car Vigo-Ciampedie** or **I take the chairlift Carezza-Paolina**	**I stay at home**
No toll	Round trip: **6 €** (per person)	Round trip: **15 €** (per person)	
Parking space **found immediately**	Bus passes **every 60 minutes**	Parking space **found immediately**	
Car access **forbidden: 8am to 6pm**	First journey: **8am**; Last journey: **6pm**	First journey: **6am**; Last journey: **8pm**	
Traffic on the road: 	Crowding at the bus stop: 	Crowding at the lift station: 	
Crowding on the trail: 	Crowding on the trail: 	Crowding on the trail: 	

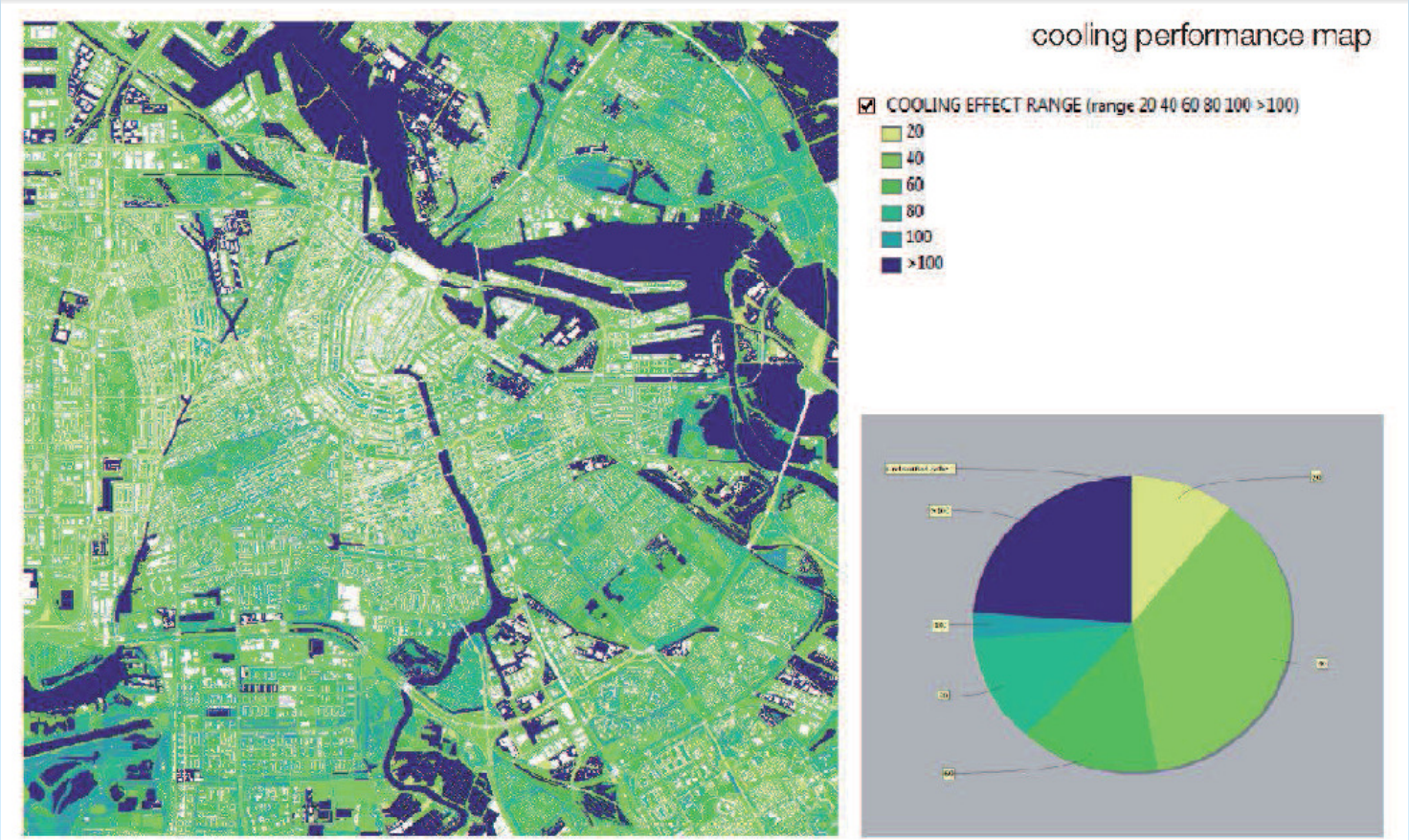
Orsi and Geneletti, 2014


Via Enrico Conci

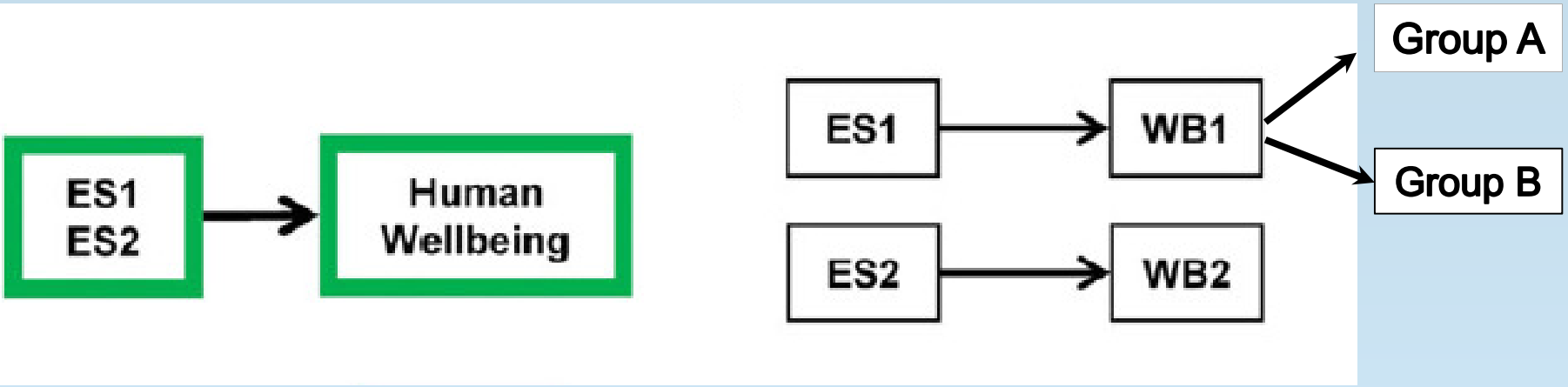
Inventory of blue/green areas

Zardo et al., in prep.

Cooling effect



Zardo et al. In prep

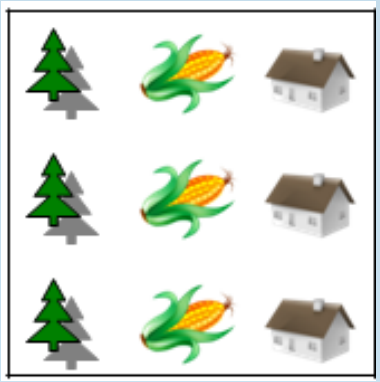


Environmental Conservation 38 (4): 370–379 © Foundation for Environmental Conservation 2011

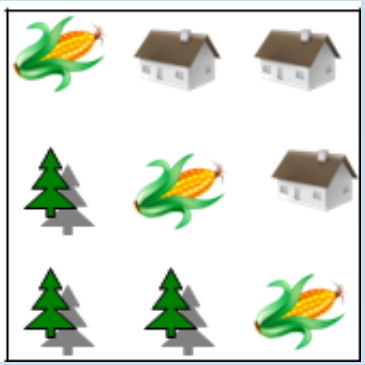
Applying the ecosystem services concept to poverty alleviation: the need to disaggregate human well-being

TIM DAW[1,2*], KATRINA BROWN[1], SERGIO ROSENDO[1,3] AND ROBERT POMEROY[4]

Policy **A**



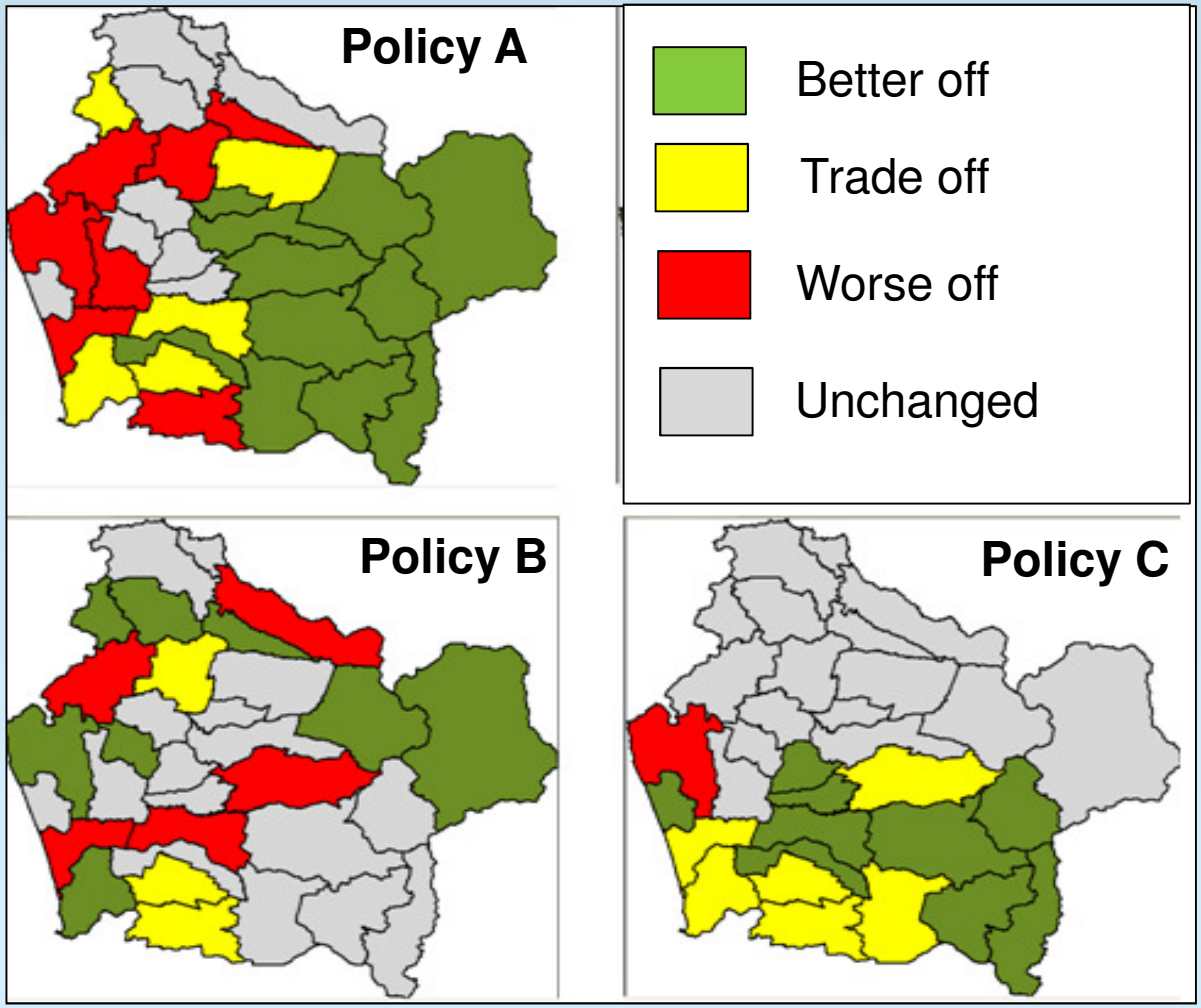
Policy **B**



Policy **C**

- **Soil erosion**: effects in terms of reduced income (*by livelihood system*)
- **Traditional landscape**: effects in terms of reduced access (*by ethnical group*)

Effects on households that rely on farming



Some conclusions

- In general, the science needed to address ES-related issues relevant to Impact Assessment is well developed.
- Data are increasingly available, at least at large scale/low resolution (often enough for many strategic-level impact assessment)

Some conclusions

- Impact Assessment practice has benefitted mostly from the ecosystem service “paradigm” (to promote better stakeholder interaction, more focused, relevant and integrated assessment)

- Ensure the uptake of more advanced methods and techniques