

Solutions to balancing biodiversity- human well-being trade-offs

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Centre for Environmental Policy

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Challenge: Identifying Trade-offs at the Nexus Between Biodiversity and Human Well-being

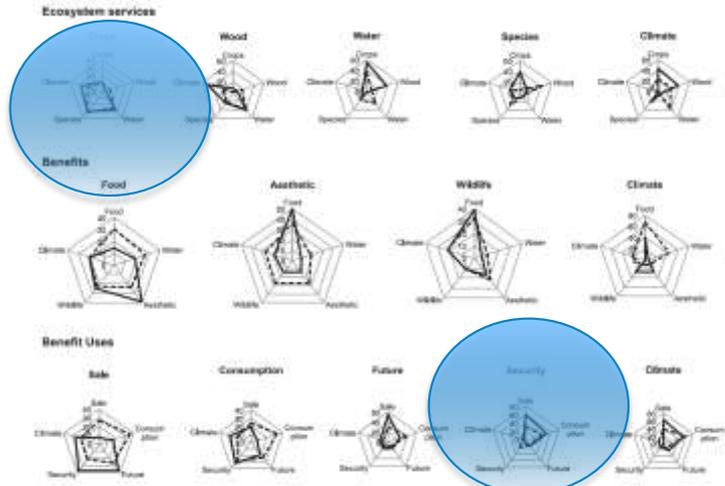


Fig. 3. Differences between winners and losers across different ecosystem services, the benefits and their uses. A solid line represents winners and a dotted line trade-offs. The scale on the spider diagrams show percentage of case studies reporting either a win, loss or a trade-off (that the percentage did not necessarily add up to 100 as a winner or loser may fall into more than one category e.g. using both crop/fish) and wood.)

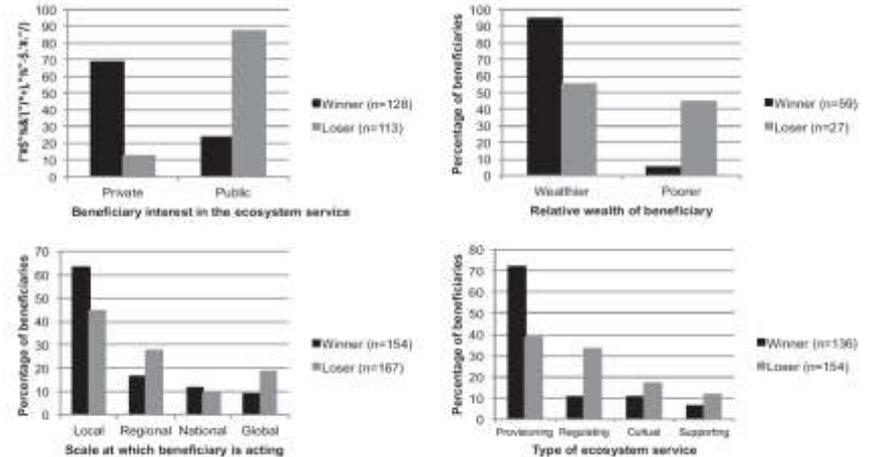
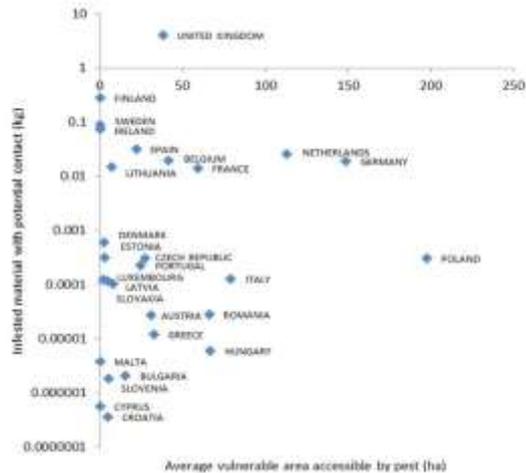
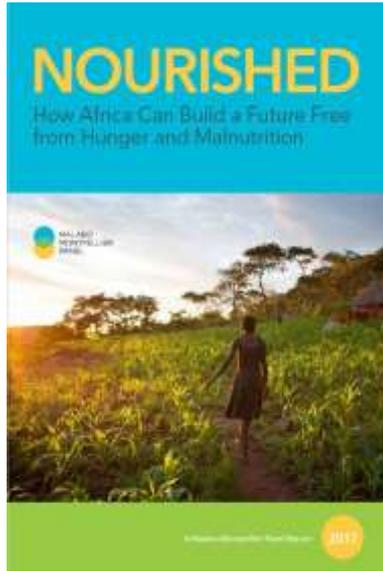


Fig. 4. Profile distribution differences between winners and losers of a trade-off. Percentage of beneficiaries is given as percentage of particular categories of stakeholders e.g. winners or losers.

Solution: Trade and Insect and Plant Pests and Diseases (Prof. Potter and Prof. Mumford)



Solution: Agricultural Investment and Finance in Africa (Sir Gordon Conway and Dr. Eric Chavez)

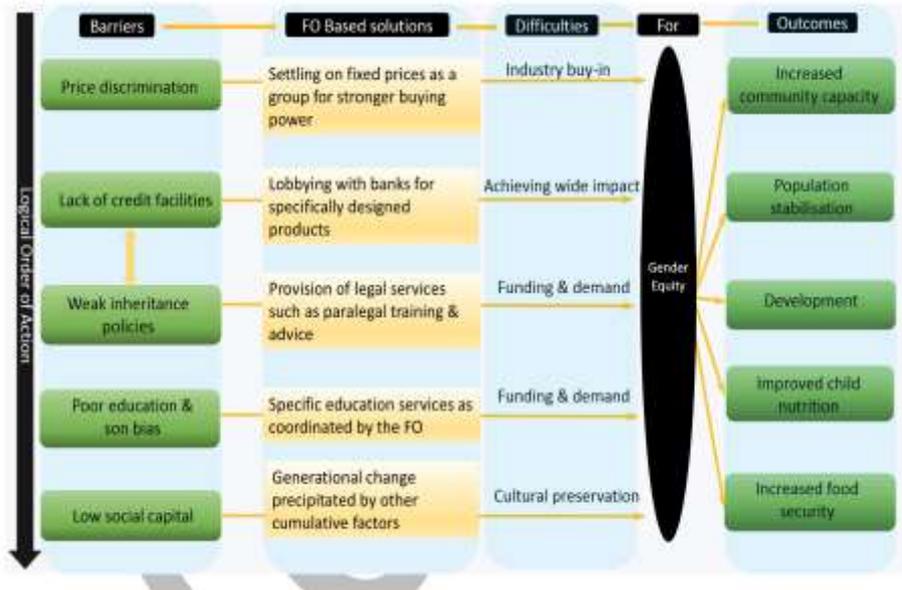


Malabo Montpellier Panel guides policy choices accelerating progress towards food security and improved nutrition in Africa. Stressing the importance of funding and investing in programmes, institutions and processes. Delivering nutrition security through sustainable agricultural development. (www.mamopanel.org)

New financial instruments transfer climate-change driven risk to the international reinsurance market. All actors in the supply chain receive increasingly favourable risk transfer commercial terms as better technologies are adopted and environmentally sustainable practices are implemented. (Chavez et al., 2015, Nature Climate Change 5(11):997)



Solution: Investment in Women (Elizabeth Stuart, Karen Makuch, Zen Makuch, Erik Chavez)



Sowing the seeds for gender equality

- Study of livelihoods of female farmers in Mbeya, Tanzania
- Found lower than expected productivity gap between male and female farmers
- Attributed to development of systematic coping mechanisms by female farmers to circumvent restrictive barriers.

Conclusion

Plan for a **TRADE-OFF** not a **WIN-WIN**

By having an awareness of and accounting for the reasons trade-offs occur, synergies are more likely.



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**Thank you for
listening!**

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Thank you to:

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Clive Potter
John Mumford
Gordon Conway
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Erik Chavez
Karen Makuch
Zen Makuch
Elizabeth Stuart
Georgina Mace
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Helen Suich
All my colleagues at CEP

Challenge: Trade-offs Between the SDGs and its Underpinning Biodiversity

GOALS SCORING
The influence of one Sustainable Development Goal or target on another can be summarized with this simple scale.

Interaction	Name	Explanation	Example
+3	Inevitable	Inevitably linked to the achievement of another goal.	Ending all forms of discrimination against women and girls is indivisible from ensuring women's full and effective participation and equal opportunities for leadership.
+2	Reinforcing	Aids the achievement of another goal.	Providing access to electricity reinforces water-cumming and irrigation systems. Strengthening the capacity to adapt to climate-related hazards reduces losses caused by disasters.
+1	Enabling	Creates conditions that further another goal.	Providing electricity access in rural areas enables education, because it makes it possible to do homework at night with electric lighting.
0	Coexistent	No significant positive or negative interactions.	Ensuring education for all does not interact significantly with infrastructure development or conservation of ocean ecosystems.
-1	Constraining	Limits options on another goal.	Improved waste efficiency can constrain agricultural irrigation. Reducing climate change can constrain the options for energy access.
-2	Counteracting	Clashes with another goal.	Boosting consumption for growth can counteract waste reduction and climate mitigation.
-3	Cancelling	Makes it impossible to reach another goal.	Fully ensuring public transparency and democratic accountability cannot be combined with natural-security goals. Full protection of natural reserves excludes public access for recreation.

Nilsson et al., 2016, Nature 524:320

“...sustainable, inclusive, and global economy leaving no-one behind” (Agenda 2030)

- Using coal improves energy access (goal 7) but accelerates climate change and acidifies the oceans (undermines goals 13 and 14).

BUT

- Enhance gender equality (goal 5) and female education (goal 4), in rural farming communities of the global south, improves economic growth (goal 8) and increases agricultural sustainability (goal 15).