Investigating the inclusion of ecosystem services in biodiversity offsetting

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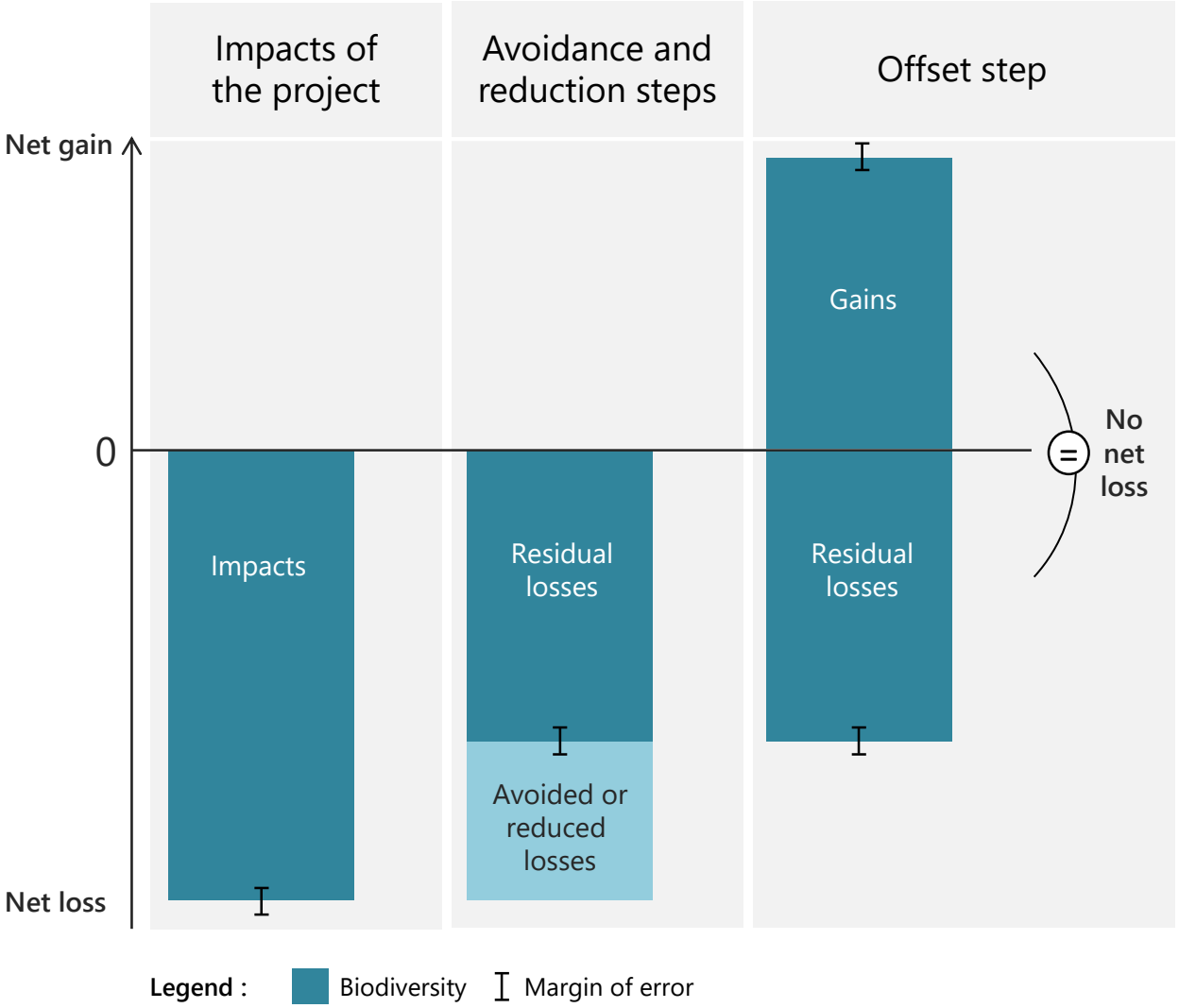
Ecosystem Services (ES)
Biodiversity Offset or Biodiversity Offsetting (BO)
Environmental Impact Assessment (EIA)

Biodiversity Offsets as a last resort



No net loss of what ?

- Habitat/species
- Ecosystem functions
- Ecosystem services ?

Increasing interest and current lack of guidelines

ES currently not explicitly included in BO

- **Regulatory contexts**:
  - sometimes mentioned
  - but not operational recommendations
- **Voluntary contexts**: international standards as a driver of change ?

BBOP Business and Biodiversity Offsets Programme

Cross Sector Biodiversity Initiative

ICMM International Council on Mining & Metals

IPIECA

EQUATOR PRINCIPLES

IFC

WORLD RESOURCES INSTITUTE

Performance Standard 6 (IFC PS6)

- Some examples in **scientific literature**

Implicit inclusion of ES within BO within EIA

- ES rarely mentioned in EIA
- But implicitly and incompletely included: physical and biological + socio-economic environments
- ES-oriented measures:
  - Example of artificial reefs
  - Community benefits or accompanying measures
  - Results of negotiations
- EIA suitable to include ES but risk of double counting

Weighting up the pros and cons

Pros

- A broader definition of the environment
- Integration of socioeconomic and societal issues
- Consideration of indirect and cumulative impacts

Cons

- BO: controversial for biodiversity conservation
- Remaining methodological gaps (no standardized assessment method of ES, link btw ES and BO, risk of double-counting etc.)
- Plurality of values and social preferences
- Risks related to weakening equivalence (≠ degrees of substitution)

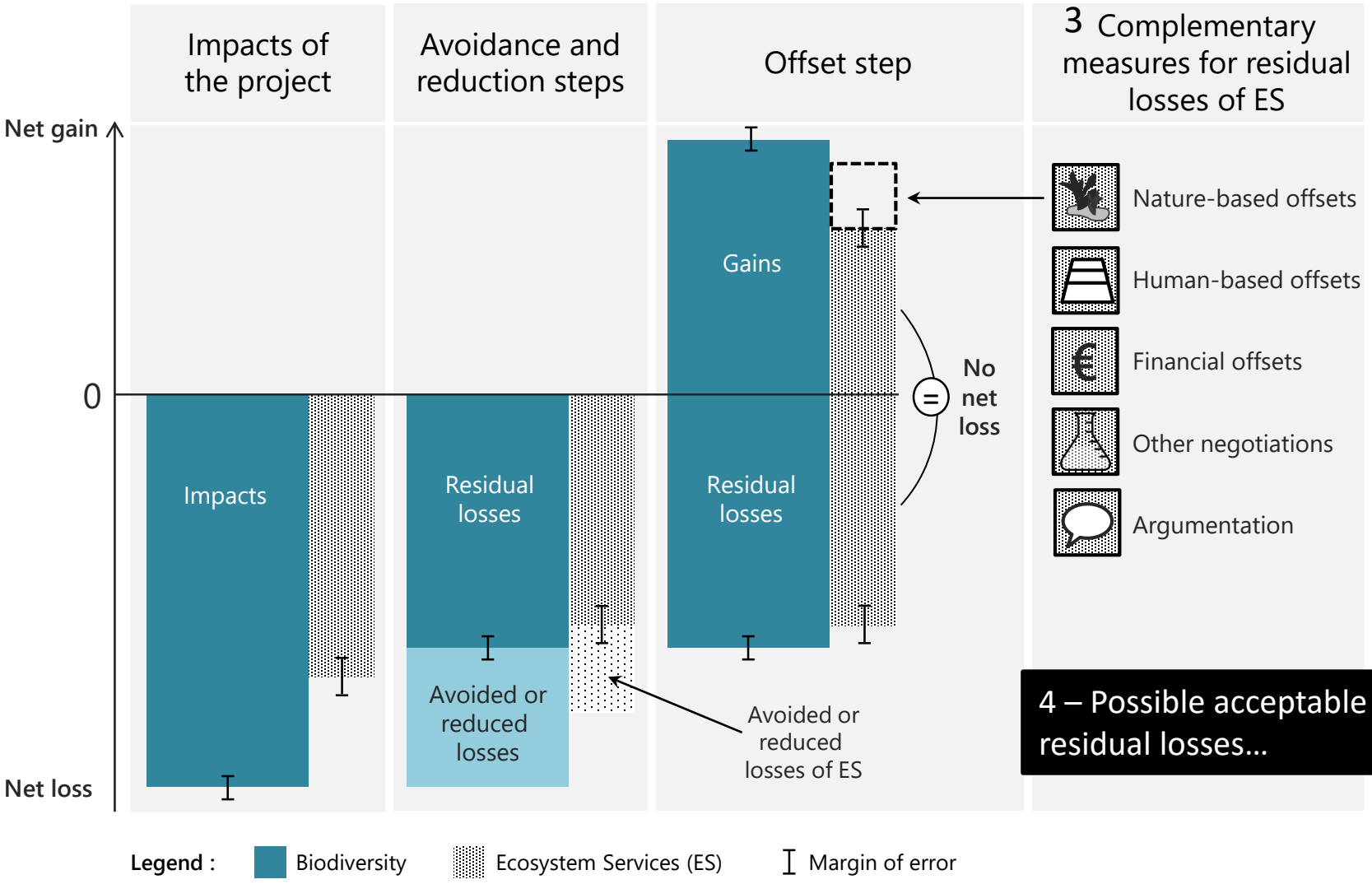
ES as a complementary approach

- Risk of only considering ES in BO
- ES provide supplementary information (socio-economic sphere)
- Can lead to more weight given to biodiversity

➔ **A complementary approach to implement alongside biodiversity conservation policies**

1 - Initial state and impact assessment

2 - Choosing BO that maximize ES' supply



4 – Possible acceptable residual losses…

Jacob et al. 2016

Conclusion

- Recent interest in including ES in BO but no guidelines
- EIA already (incompletely) implicitly includes ES
- Way forward and policy implication:
  - EIA as a way to include ES in BO
  - Following the hierarchy (NNL of biodiversity first)
  - Do not substitute (complementary measures for residual losses of ES)
- Limits :
  - BO only for **significant** residual impacts on (not overall) biodiversity
  - Lots of EIA do not lead to BO
  - Our proposal relies on an improvement of EIA and BO




Questions ?

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