

Habitat Banking the in the EU: Demand, Supply and Design Elements

*A report prepared for the European Commission :
“Exploring potential Demand for and Supply of Habitat Banking in the
EU and appropriate design elements for a Habitat Banking Scheme “*

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A focus on biodiversity offsets and habitat banking as means compensating for biodiversity loss

Key elements of the study:

- The **legislative framework** for addressing compensation for biodiversity loss in the EU and the MS
- The potential **demand** for biodiversity offsets and habitat banking in the EU
- The **supply** of biodiversity offsets and habitat banking, and the factors that affect it
- The **costs and benefits** of biodiversity offsets and habitat banking schemes
- Key **design elements** of biodiversity offsets and habitat banking schemes
- **Gaps in knowledge and priorities for future work**

EU policies – main findings

- Framework for compensation is provided by:
 - the Habitats Directive (covering the Natura 2000 (N2K) network) but no clear criteria / method
 - the Environment Liability Directive (ELD) (more detailed but reactive)
 - Some requirements in the Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) Directives but scope limited and more procedural than substantive
- Compensation clearly required for N2K, and for protected species to a certain extent
- However there are several issues and gaps, e.g.:
 - Definition of ‘significance’ of impacts
 - Compensation ‘if possible’,
 - Cumulative effects,
 - Consideration of the mitigation hierarchy
 - Scope of the EIA and SEA Directives
 - Implementation and monitoring issues

Member State policies – main findings

- Uneven implementation and requirements regarding offsets and compensation in the different MS
- Most MS implement the EU framework without going beyond its requirements
- Compensation mostly in N2K areas & for certain types of developments; measurable biodiversity benefits not always required
- Some MS have more stringent requirements (e.g. Germany), produce guidance (e.g. France) or are implementing/testing habitat banking (e.g. Germany, France, the UK), others allow financial rather than in-kind compensation (e.g. Sweden)
- However, there are issues with implementation

The current legislative framework is the main factor constraining demand in the EU

- Lack of clarity as to the nature of compensation required
- Low requirements for compensation in unprotected areas (some requirements for strictly protected species)
Insufficient coverage of development projects
- Lack of effective compensation for small impacts that cumulatively result in significant biodiversity losses
- Insufficient enforcement and long-term monitoring of the compensation measures
- Uneven requirements for compensation measures in different MS, and possibly different regions of a MS

The demand for offsets is determined by three key factors

- The level of demand for offsets depends on:
 - **The extent of loss** due to development and other activities that can trigger compensation
 - The degree to which compensation is required (i.e. as a result of the regulatory framework)
 - The metrics being used to determine offset requirements

“No net loss” in the EU could mean offsetting the loss of ~50,000 – 100,000 ha of habitat per year

- This relates to the loss of undeveloped land to development up to 2020 (excluding brownfield land)
- Figure could rise if loss due to human-induced natural disasters is included (e.g. figure rising to 160,000 – 540,000 ha lost per year if include human-induced forest fires), but establishing legal liability for this damage is a challenge.

Current legislation only covers a small proportion of this loss

- EU requirements only cover ~10% of the area of land developed (largely as a result of the Habitats Directive)
 - The Natura 2000 network is generally rarely damaged to the point where compensation is required (~8,200 ha are damaged per year, 0.01% of N2K = 50,000 ha of offsets)
 - Only 4,000 out of 16,000 EIAs potentially give rise to compensation (and likely that overlap with N2K is high)
 - Current demand from ELD seems limited as implementation is still slow
- Requirements for compensation from national legislation only seem able to account for a small proportion of additional habitat that is lost outside of the N2K network

The supply of offsets are constrained by four key factors

- Four factors determine whether supply is limited or not:
 - The kinds of habitats that are being lost (i.e. level of demand)
 - The condition of existing habitats
 - The ability to restore or recreate different habitats
 - The extent to which like-for-like compensation is a requirement
- These factors interact (e.g. constraints on the restoration of a particular habitat is only important if the habitat is being damaged and if like-for-like compensation is required)

Policy decisions affect supply constraints; different decisions may apply in different contexts

- Supply constraints can be managed by balancing different elements through decisions on:
 - The extent to which off-site compensation can occur
 - The extent to which like-for-unlike compensation can occur
 - The extent to which the scale and type of resulting biodiversity benefit is important
- More flexibility (like-for-unlike and off-site offsetting) facilitates habitat banking, can ease supply constraints and allow for a more strategic, connected approach e.g. UK. (But: political/public acceptability; biodiversity benefits?)
- Like-for-like requirements (e.g. for high value habitats) should discourage damage & deflect development onto easier-to-restore or less costly habitats

In practice the main factor currently affecting the supply of offsets seems to be land availability

- Aside from land availability (and timescales to some degree), other factors limiting supply seem to be of less concern in the EU, potentially because:
 - Habitats which are inherently different to restore are rarely affected by development
 - Issues of demand tend to be more pressing
 - Constraints can sometimes be overcome by like-for-unlike compensation

The different types of costs associated with offsets

- Habitat management costs
 - Restoration
 - Creation
 - Long term management
- Land costs
 - Land purchase
 - Management agreements
- Management and transaction costs
 - Time, fees and expenses
 - Applications, negotiations, permits, project management, management planning, monitoring, reporting etc
- Administrative costs
- Price of credits includes profits of providers

Evidence of costs and credit prices in the EU

- England:
 - National study estimated costs at €63 to €500 million annually, based on average €30-60k per hectare
 - One provider estimates costs at €37-100k per ha
- France – credit prices €30-80k per ha in HB pilots
- Netherlands:
 - Costs of habitat restoration projects have been estimated at €20k per hectare; land costs can be very high
 - Costs of compensation normally about 1% of costs of road and rail projects
- Sweden – one 500 hectare wetland creation and restoration project averaged €25k per ha

Benefits of offsets and habitat banking

- Main benefits
 - Effectiveness in conserving biodiversity and ecosystem services
 - Contribution to NNL if losses are accurately measured and effectively compensated
- Little evidence of benefits comparable to costs (i.e. monetary valuation of benefits)
 - But is valuing benefits necessary as policy aims to meet clear sustainability criteria?
- England:
 - Impact Assessment put monetary values on benefits (2x costs)
 - Voluntary pilots focusing on enhancing effectiveness of compensation and streamlining processes

Design elements for a habitat banking scheme

- A number of widely accepted **principles** guide the design of offsets – these are formalised through BBOP Standard
- Key design elements can be divided into two groups:
 - Elements that determine **offset requirements**
 - Arrangements for **implementation** of offsets and habitat banking

Design of offset requirements

- **Objectives** of schemes vary:
 - BBOP Standard – offsets require at least no net loss
 - Varying objectives in EU, e.g. DE requires “no net loss”; SE general requirements for “compensation”
 - Objectives also differ in focus: habitats vs. species, wider ecosystem services, benefits to local population etc.
- Implementation of **mitigation hierarchy**
 - Widely accepted as key element of offset schemes
 - Clear guidelines often lacking on how it should be applied
 - Some policies stress avoidance or minimisation for more significant habitats - this may limit demand in some EU MS (e.g. DE)
 - Planning authorities key role to ensure adherence to hierarchy
 - Few examples of the use of Biodiv. Offset Management Plans

Design of offset requirements

- **Conditions and thresholds (upper and lower) vary** – e.g. whether restricted to more important sites or species or applied to any project that affects biodiversity
 - Most MS required only for certain (often ill defined) circumstances
 - Germany requires offsets for wide range of projects
 - England requires compensation for “significant harm”
- **Mandatory and voluntary approaches**
 - Mandatory schemes: across EU for N2K; in Germany for residual losses following impacts on other categories of biodiversity
 - Voluntary schemes: pilots in England; national in Netherlands
- **Like for like or better** compensation is preferred
 - Esp. for distinctive habitats vs. trading up for less distinctive habitats.
 - Requirements vary (e.g. Sweden, UK). NL recently more flexible

Design of offset requirements

- **Metrics** to determine offset requirements
 - Should ensure equity in type, space and time and take account of condition/quality, distinctiveness, risk and uncertainty.
 - Biodiv. measures, currency, accounting model. Range of approaches.
 - Generally no uniform / transparent approaches in EU. (e.g. UK developed a set of metrics but criticised by some; FR: equivalency often calculated in terms of area but wide variety of approaches; SE/NL: no official national method, but some local authorities have developed own (SE) or responsibility of regional bodies (NL))
- **Additionality** of benefits is widely stated requirement
 - Allowable actions – restoration, creation, averted risk?
 - NL: legislative condition, UK: provided in principles
 - Additionality of funding – e.g. DE (private only), UK (Wildlife Trusts), SE (measures on PAs not additional; identification of projects from LAs)

Design of offset requirements

- **Locational requirements**

- Most offsets have geographical limits (“service area”)
- Local offsets normally preferred for ecological and equity reasons but very local offsets not always feasible or optimal
- Varying approaches in EU: SE stresses very local compensation; UK uses offset strategies to maximise conservation benefits; NL requirements have been relaxed slightly

- **Timing of compensation**

- Projects cause immediate losses but offsets may deliver uncertain gains over long time periods
- Habitat banking allows some progress to be demonstrated prior to project impact
- Metrics to discount future benefits (e.g. England - up to 3:1 ratio)

Arrangements, and how these are regulated, have a significant influence on implementation

■ Institutional arrangements

- Need to be effective and based on clear responsibilities.
- Many different approaches (e.g. developers, providers, brokers, national/local government, public agencies, NGOs, communities)
- Liability can also vary (e.g. developers, providers)
- Important to involve local community (but...), planners and include environmental considerations early on in the process

■ Regulators

- Without a strong regulator, HB unlikely to be successful or limited to “hotspots” of voluntary action. Clarity of roles also key
- Currently offsets in the EU are normally the responsibility of local or regional authorities, with little national oversight.
- Need for sufficient capacity and capabilities
- Broad consensus that there is a need for a mandatory approach

Arrangements, and how these are regulated, have a significant influence on implementation

■ Instruments and models

- Vary considerably, including individual agreements, habitat banking schemes, etc.
- In the EU this is mostly done through the planning system using conditions attached to planning permits, so detailed guidance especially important.
- Market mechanisms in the EU are rare (e.g. Germany).

■ Land acquisition (availability and access)

- Often cited as a key barrier to implementation (e.g. NL, SE).
- Various options are available, including purchasing or leasing land, management arrangements, community agreements.
- Lack of formal mechanisms makes this difficult & time consuming
- Land can also be more forcibly acquired through regulation (e.g. Sweden) or agencies with pre-emptive rights (e.g. France).

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■ Standards and performance criteria

- Important to ensure implementation is effective. Need to be specific, measurable, achievable, realistic and timetabled.
- Their use in the EU is rare and usually ad hoc (e.g. France),
- Likely due to lack of guidance and limited delivery experience
- DE has quality standards for habitat banks (compensation pools)
- Key are the BBOP standard and revision to IFC PS6 standard

■ Certification and accreditation

- Helps to build confidence in the process.
- There are few examples in the EU (e.g. Germany), although some exist internationally (e.g. South Africa, Australia).
- A range of mechanisms (e.g. third party, government standards) and options (e.g. of the bank, of the providers) are available

Arrangements, and how these are regulated, have a significant influence on implementation

■ **Monitoring and reporting**

- Essential e.g. for compliance, transparency, adaptive management
- Key element in some international systems (US / AUS); practice in the EU tends to be ad hoc, although situation seems to be improving (draft doctrine in FR, DE/SE system working well).
- Importance of a robust baseline, need to cover implementation & impact performance
- Responsibility varies (regulator, third parties, developers, NGOs).

■ **Enforcement**

- Enforcement in the EU relatively undeveloped; penalties for non-compliance (SE) are rare
- More common elsewhere (e.g. US/AUS) where can have administrative, civil and criminal penalties. Compliance can also be ensured through iterative release of funds

Arrangements, and how these are regulated, have a significant influence on implementation

- **Long term management and contingencies for failure**
 - Safeguards / adaptive management / contingency plans largely lacking (vs. US)
 - Some exceptions (e.g. Germany) and evidence of long term perspective at least being considered (e.g. France, UK)
 - Range of mechanisms, e.g. endowment funds, easements/legal restrictions on land use, mandatory renewal of credits following inspection, covenants to title deeds, public ownership
 - Contingency funds important (e.g. US) but rarely used in the EU
- **Overall:**
 - Implementation more advanced on some aspects than others
 - Usually ad hoc largely due to lack of demand (because of inadequate regulatory requirements)
 - Lessons to be learned from BBOP principles and int'l experience

