Legal Instruments to implement the objective “Land Degradation Neutral World” in International Law

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Outline

► Introduction

► Working definitions of prevention, remediation / offsetting, and planning

► Case study results for EU/Germany, US and Brazil

► Conceptual approaches identified which contribute to land degradation neutrality
Introduction to the analysis of national legislative frameworks

► Aim

► Assess whether appropriate national legal instruments exist which could support the achievement of the LDNW objective

► Relevant laws with provisions aimed at prevention, remediation / offsetting, and/or planning against land degradation

► Targeting specific soil threats: erosion, contamination, sealing, salinisation

► EU/Germany, US and Brazil (limited scope)

► Conceptual approaches of laws from each case study

► Elements or mechanisms, such as permitting schemes, monitoring and reporting, funding
Prevention, remediation / offsetting, and planning

- **Prevention**
  - Restrict certain types of uses or actions on land, or
  - Minimise the negative impact of processes in order to conserve or maintain land quality

- **Remediation**
  - Restore or rehabilitate lands from their particular state of degradation into healthier, functioning ecosystems

- **Offsetting**
  - Require an equal (or larger) amount of restored or rehabilitated land in order to allow a specific incident of land degradation
Prevention, remediation / offsetting, and planning, cont.

- Planning
  - Direct actions or processes through longer-term strategies, programmes or plans in order to achieve zero net land degradation
    - Land use planning mechanisms (e.g., zoning, urban growth control measures)
    - Strategies promoting both prevention and remediation/offsetting
European Union

- Prevention provisions more numerous

- Planning
  - Included for overarching or specific concerns (e.g., protected areas under the Habitats Directive) as well as environmental procedural checks (EIA and SEA)
  - Landscape/use planning more at national level

- Remediation (selection)
  - Funding mechanisms for contaminated sites (Draft Soil Framework Directive)
European Union
Prevention (selection)

- **Soil monitoring and integration** of soil protection into other policies (EU Soil Thematic Strategy)
  - Soil Framework Directive proposal had interesting ideas: identifying risk areas for soil threats, creating risk reduction targets, measures to meet the targets, an implementation timeline, and necessary funds.

- **Baseline reports** for monitoring soil pollution and groundwater quality, setting pollution limits for air, water, etc., monitoring and permitting obligations (Industrial Emissions Directive)

- Mandatory **cross-compliance measures** tied to government funding and voluntary incentives for actions (e.g., set-asides, sustainable agricultural practices, legal protection against conversion of land) under the Common Agricultural Policy (CAP)
Germany

- Prevention (selected)

  - Tradable land use certificates, land recycling measures, and Circular Flow Land Use Management

  - Building site designation and/or development charge or a sealing charge

  - Soil protection measures and temporary limits on building permission – need written justification if want to convert agricultural and forestry areas (Federal Building Act)
Germany

- Remediation (selected)
  - Legally binding compensation or offsetting for environmental impacts from building measures (impact mitigation regulation) under the German Federal Building Act linked to the Federal Nature Conservation Act (BNatSchG)
  - Eco-accounts (Ökokonto) – local authorities acquire resources / sites for nature protection to compensate for and offset unavoidable harm that occurs elsewhere

- Planning (selected)
  - Examination of and remediation planning for contaminated soil (Federal Soil Protection Act)
  - Complex system of landscape planning (Federal Nature Conservation Act)
United States

- Prevention (selected)
  - **Sustainable management contracts** can be agreed with private actors under the Title 16 Soil Conservation and Domestic Allotment Act.
  - **Cross-compliance measures** on high-risk lands and **voluntary incentives**, e.g., Agricultural Conservation Easement Program (Farm Bill)
  - Funds also made available to incentivise or **leverage public-private partnerships** (e.g., new Regional Conservation Partnership Program of the Farm Bill)
  - Setting **water quality standards** as well as **permitting schemes** (Clean Water Act and RCRA)
    - Wetland dredge and fill (combined with remediation)
    - Cradle-to-grave hazardous waste (also includes a tracking system)
United States

- Remediation (selected)
  - **Offsetting for wetland conversion** under the CWA or non-compliance with restrictions under the Farm Bill conservation compliance programme; and accompanying quality standards and monitoring/enforcement.

- **Building a large fund through a tax** on the industries and **cost-recovery mechanism**
  (Comprehensive Environmental Response, Compensation, and Liability Act)

- **Funding provisions** under the US Forest Landscape Restoration Act provide for low-interest loans, cost-share agreements, and reimbursement of private actors for restoration costs.
United States

Planning (selected)

**Comprehensive long-term planning** of existing and future land uses

- Anti-sprawl mechanisms (e.g., Vermont Act 250 and Oregon Act 197)

- More stringent protection under local zoning ordinances based on quality of soil (e.g., “prime agricultural land” under the comprehensive plan)

**Participatory planning** for remediation actions under the US Forest Landscape Restoration Act
Brazil

- Prevention (selected)
  - Many prevention provisions identified and many addressing erosion / contamination
  - Protected forest areas such as permanent preservation areas (APP) and legal forest reserves (LFRs) under the Forest Code (*planning element*)
  - Soil monitoring (CONAMA Resolution No. 420/2009)
  - Restrictions on vegetation removal in Brazil’s Atlantic Forest Law so that it primarily takes place on substantially degraded land
Brazil

Remediation (selected)

- Many provisions identified (e.g., Liability approach for environmental degradation)

- Forest Reserve Credits (CRAs) in Brazil’s Forest Code can offset the lack of a legal reserve on one rural property by establishing a reserve on another, provided they are located in the same biome and the same State where the CRAs are created.

- Procedures for identification of contaminated land under the Brazilian Decree No. 59,263, including monitoring incentives and guidance on transparency in contamination-related aspects of land degradation.
Brazil

- Planning (selected)
  - **Creating registers** for areas affected by desertification and adoption of appropriate management plans for the use of technologies that can stop the process of desertification (Brazilian Agricultural Policy (Law No. 8,171/91))
  - Preparation of solid waste plans by states and municipalities (Solid Waste Management Policy)
  - **Water Resources Plans** set up as long-term plans under the National Policy on Water Resources (Law 9,433/97)
Example matrix of laws by category and soil threat (Brazil)

<table>
<thead>
<tr>
<th>Laws</th>
<th>Prevention</th>
<th>Remediation/Offsetting</th>
<th>Planning</th>
<th>Threats</th>
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Thank you for your attention.

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