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

**Elizabeth Dooley
Susanne Altvater, Ennid Roberts
Ecologic Institute**



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)
 - ▶ Contamination (Environmental Liability Directive, Industrial Emissions Directive, Sewage Sludge Directive)
 - ▶ 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)

Laws	Prevention	Remediation/ Offsetting	Planning	Threats
Federal Constitution	X	X		Erosion, contamination
Contaminated Land, CONAMA Resolution 001/86	X		X	Erosion, contamination
National Environmental Policy (No. 6,938/1981)	X	X	X	Erosion, contamination
CONAMA Resolution 420/09		X		Contamination
Forest Code, Law No. 12,651/2012	X	X	X	Erosion, sealing, <u>salinisation</u>
Atlantic Forest Law, Law No. 11,428/2006	X	X	X	Erosion, sealing
Decree No. 59,263 on Contaminated Areas	X	X	X	Contamination
Brazilian Nature Conservation System (No. 9,985/2000)	X	X		Erosion
Water Law (No. 9,433/97)	X		X	Contamination
Waste Law (No. 12,305/2010)	X	X	X	Contamination
National Policy on Climate Change (No. 12,187/2009)		X		Erosion
Agricultural Policy (No. 8,171/1991)	X	X		Erosion



Thank you for your attention.

Elizabeth Dooley

Ecologic Institute, Pfalzburger Str. 43-44, 10717 Berlin

Tel. +49 (30) 86880-127, Fax +49 (30) 86880-100

elizabeth.dooley@ecologic.eu

www.ecologic.eu