



environmental
technology

Brownfield Opportunity Matrix - BOM

Guide and Strategies for Land Re-Use

r³ Environmental Technology Colombia S.A.S.





Re-uso de Suelos Contaminados



Building or Infrastructure



Often Combined



Unsealed Soil

“Hard Re-Use”
 Residential, industrial parks or infrastructure
 Less feasible for land affected by mining

“Soft Re-Use”
 Green or Renewable areas as production of biomass
 Soil functionality is maintained or improved (Cundy A. B., et al., 2013).



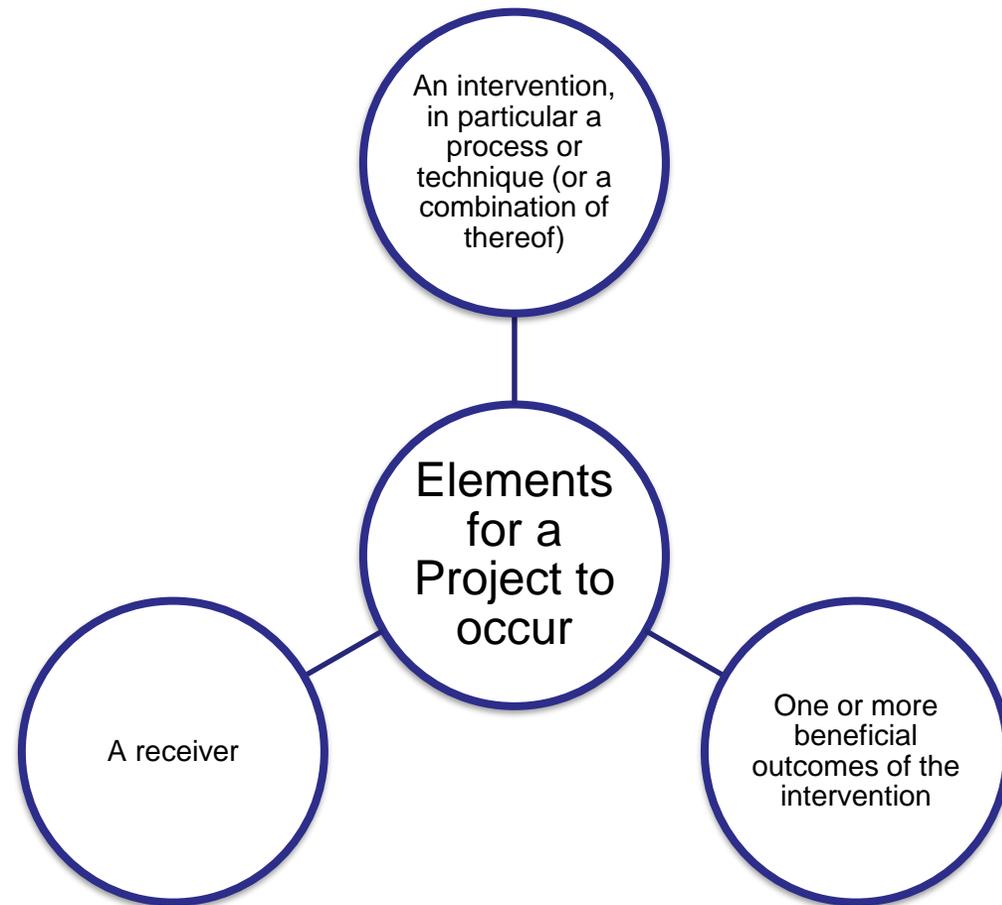
Definiciones

Service

- Provides benefits for specific users or “receptors” who receive the benefit (HOMBRE Project).
- Job creation for the local community
- Improved biodiversity for nature
- Renewable energy income for site owners.
- Direct and indirect benefits that humanity receives from biodiversity. Result of interaction components - structures – functions (PNGIBSE)
- Provisioning Services
- Regulation Services
- Support Services
- Cultural Services

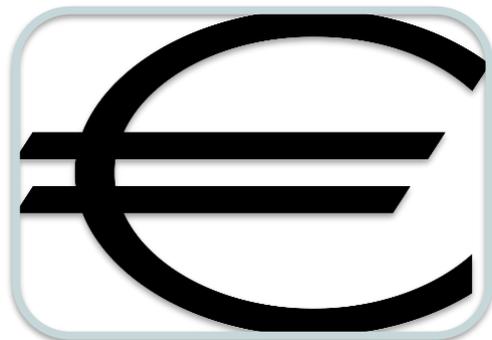
Intervention

- deliberate action carried out with the intention of modifying / managing a brownfield site
- Remediate contaminants by adding biochar
- Improve soil quality by adding composts to intervene





What Value can These Deliver?



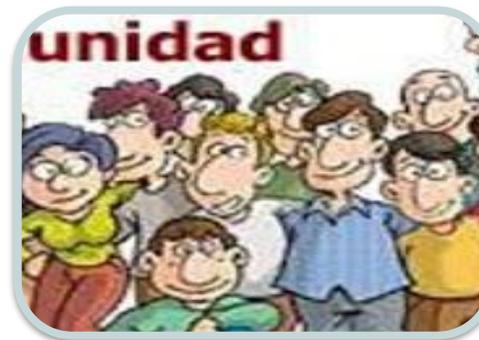
Revenue Generation Opportunity

- eg: Renewable Energy Incomes



Natural Capital/ Ecologic

- eg: Cleaner water



Cultural Capital

- eg: Nicer landscapes



Economic Capital - Tangibles

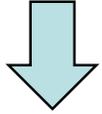
- eg: Health improvement = reduced health services costs



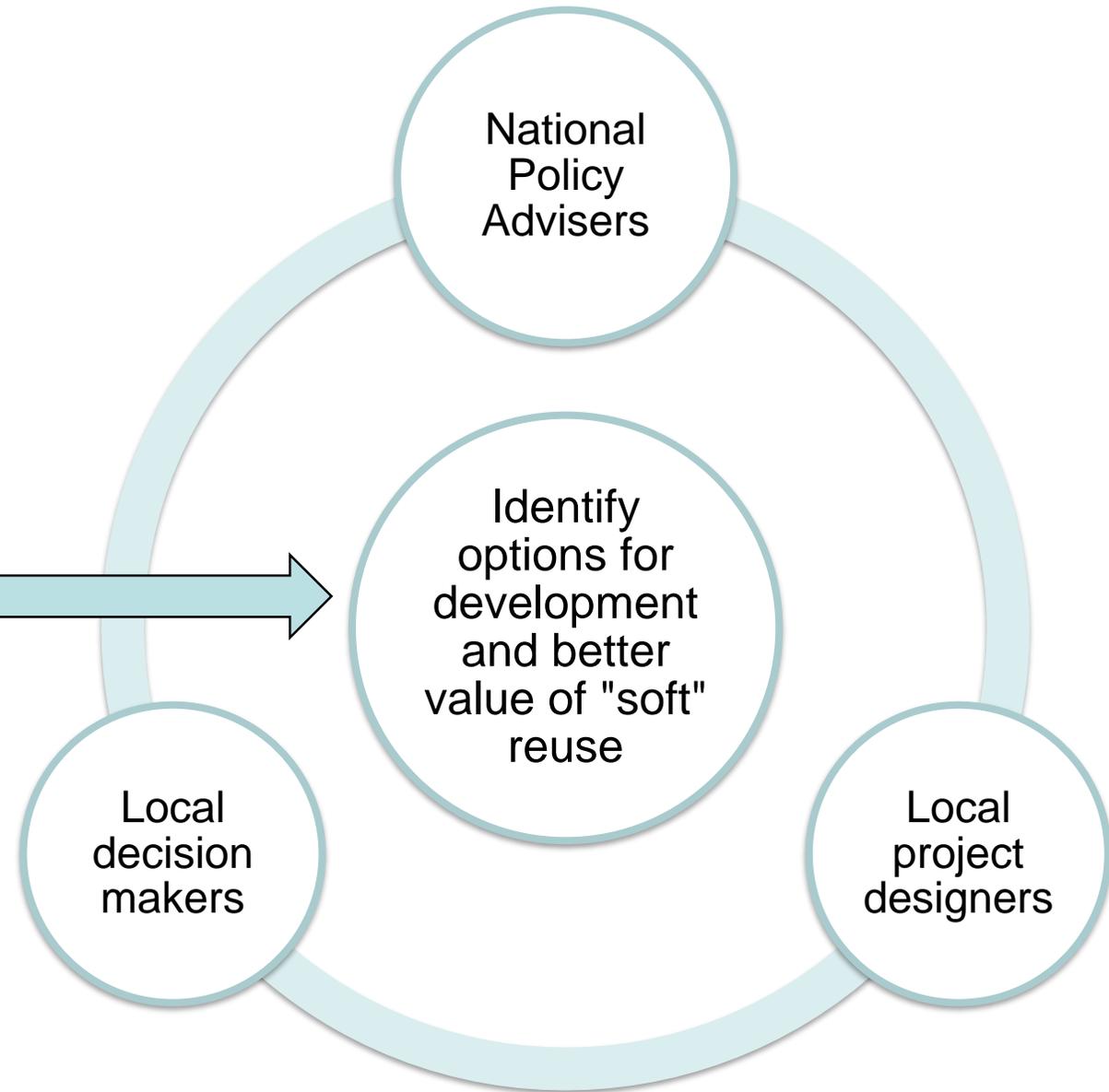
Economic Capital - Intangibles

- eg: Best Reputation = "brand value" of the locality as a good place to live is improved

¿What is the BOM?



Simple tool (Excel)
that shows services
provided by
particular
interventions.





BOM Description

	Services
Interventions	Value (color code)



	Contributes strongly and directly
	It provides some benefits directly and / or indirectly
	Can contribute or be detrimental (site-specific circumstances, management / design)
	Without influence (complementary intervention)
	May be harmful (proper management / design and mitigation)

<h2 style="text-align: center;">Matriz de Oportunidades para Sitios Contaminados</h2>						
		Mitigación de riesgos de suelos contaminados y agua subterránea - Servicio de Regulación	Mejoramiento de Suelo - Servicio de Soporte			
<p><i>Una herramienta de soporte para decisión a alto nivel para demostrar el valor y las oportunidades de reconversión de un sitio abandonado contaminado para un re-uso</i></p> <p>Clave suave Instrucciones</p>		Biósfera (Incluyendo salud humana)	Recursos Hídricos (Hidrosfera)	Fertilidad	Estructura del Suelo	
		Opciones de Remediación "Gentil"	Fito-remediación	●	●	●
			Adición de Enmiendas	●	●	●
			Atenuación Natural de	●	●	●

Upper Half: Example Description

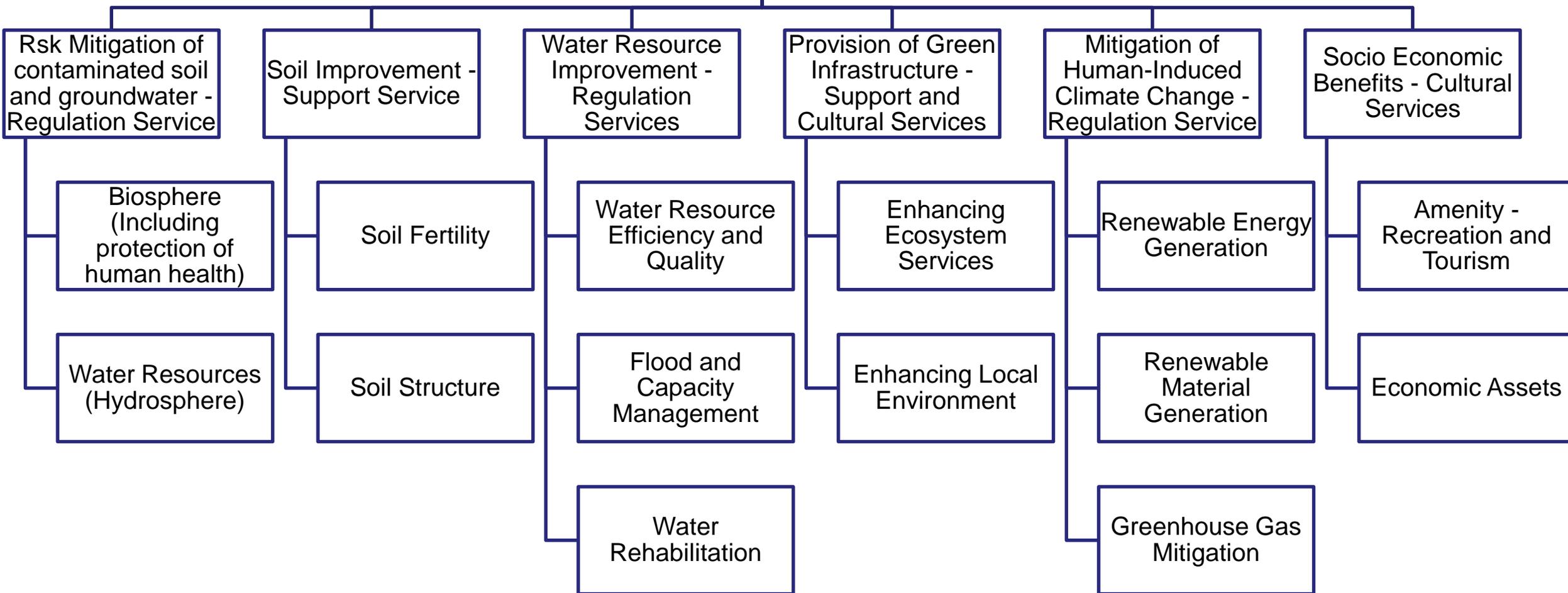
Bottom Half: Link to example

Link to a spanish example

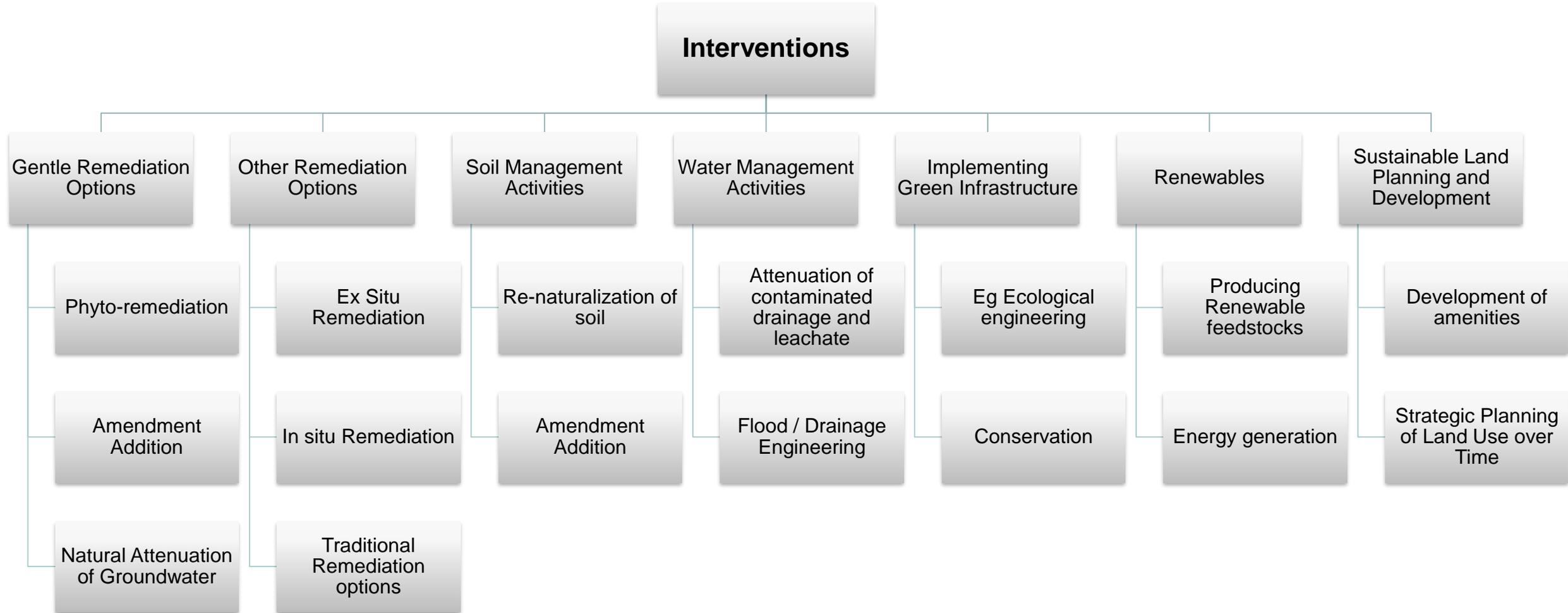


Six Groups of Soft Reuse Services

Services



Seven Groups of Interventions for soft reuse



When to use the BOM?

