Reaping economic and environmental benefits of scaling up nutrient recovery technologies for sustainable soil ecosystem services in Sri Lanka

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1. PROBLEM STATEMENT
- Soil nutrition depletion
- Reliance on imported chemical fertilizers
- Organic waste related pollution

2. RESEARCH QUESTIONS
- Feasibility of organic fertilizer production
- Impact on soil ecosystem services
- Optimal mix of organic and chemical fertilizer uses
- Enabling environment

3. METHOD
- DPSIR/ Impact analysis
- Economic multi-regional optimization
- Waste-to-compost supply chain
- Material Flow Accounting (MFA)
- Institutional (governance) analysis

4. RESULTS: Organic and chemical fertilizer use impacts on soil ecosystem services (Index: -3 to 3)

5. RESULTS: Changed costs along waste-to-compost supply chain under composting strategies in Sri Lanka

6. RESULTS: Organic fertilizer share in total nutrient (NPK) consumption in accordance with waste recycling strategy

7. RESULTS: Economic policy instruments to harness nutrient cycle along the waste-to-compost supply chain

8. CONCLUSION: Internalizing externalities, raising ecological awareness and stopping subsidize substitutes along the supply chain are important for the success of the ‘nutrient recovery from waste’ business model in Sri Lanka

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