

## Report Outline

### Combatting Soil Degradation in Romania

This report examines agricultural adaptation strategies documented in the Sustainability Diaries curated by SIDINL Newsletters – Europe, focusing on rural farming communities in Romania. It highlights efforts to combat declining soil fertility through organic practices, cooperative markets, and knowledge-sharing with Ugandan agricultural experts.

Romania's rural agricultural regions face significant challenges due to soil degradation caused by overuse of chemical fertilizers, monoculture farming, and climate change. These challenges threaten small-scale farmers' productivity and livelihoods. Sustainability Diaries document innovative solutions adopted by farming communities to restore soil health, such as organic composting, crop rotation, and cooperative market development. The report also investigates the influence of Ugandan practices, including intercropping and natural pest management, on Romanian initiatives.

The report examines three Sustainability Diaries from Romanian agricultural regions:

1. A diary from the Carpathian foothills documenting the use of composting and natural fertilizers to improve soil fertility.
2. A diary from a cooperative in Cluj County implementing crop rotation and cooperative marketing strategies.
3. A diary from Moldova County exploring intercropping and biodiversity integration for pest control and soil health.

Data includes written narratives, photos of farming techniques, crop yield records, and testimonials from community members. Cross-continental collaboration with Ugandan agricultural experts is analyzed through knowledge exchange programs facilitated by SIDINL team.

Farmers in the Carpathian foothills adopted organic composting and natural fertilizers, leading to:

- A 20% increase in crop yields over three years.
- Improved soil texture and nutrient content as measured by local agricultural agencies.
- Inspiration from Ugandan composting techniques, particularly the use of multi-layer organic waste decomposition.

Farmers in Cluj County formed a cooperative to market organic produce, coupled with crop rotation practices. Key outcomes include:

- Economic benefits from shared resources, reducing individual costs by 15%.
- Improved resilience against market fluctuations through a shared branding initiative for organic produce.
- Learning from Ugandan cooperatives about collective marketing strategies and pricing models.

Farmers in Moldova County integrated intercropping to improve soil fertility and pest control. Results include:

- Reduction in chemical pesticide use by 25%, enhancing soil microbial diversity.

- Stabilized yields despite unpredictable rainfall, supported by biodiverse planting schemes.
- Adoption of Ugandan techniques such as planting legumes alongside staple crops to replenish soil nitrogen.

The economic and environmental benefits of organic practices and cooperative efforts are explored, alongside challenges such as financial barriers and lack of widespread access to educational resources. The discussion emphasizes the role of cross-border collaboration in scaling solutions to other regions.

The Sustainability Diaries from Romania provide valuable examples of community-led adaptation to soil degradation. Recommendations include:

1. Expanding training programs for organic composting and intercropping.
2. Providing financial incentives for cooperative market development.
3. Strengthening partnerships between European and African farming communities to exchange best practices.