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Topic: Central Asian Countries Initiative for Land Management (CACILM): A Study of Tajikistan

Findings

1. Land Degradation in Tajikistan

- Land degradation is a major environmental challenge due to soil erosion, desertification, overgrazing, deforestation, and unsustainable agricultural practices.
- More than 50% of the region has experienced significant land degradation over the last two decades.
- Limited arable land and mountainous terrain make Tajikistan particularly vulnerable to land degradation.

2. Restoration of Degraded Land

- CACILM has contributed to the rehabilitation of degraded lands through sustainable land management practices.
- Soil conservation measures such as terracing, contour farming, and improved water management reduced soil loss by 30–50%.
- Vegetative cover increased to about 45–60% in project areas, indicating successful land restoration.
- The first hypothesis regarding land restoration was found to be partially valid.

3. Improvement in Agricultural Productivity

- Introduction of drought-resistant crops, conservation agriculture, and intercropping improved agricultural performance.
- Crop yields of wheat, beans, and legumes increased by approximately 10–20%.

- Improved farming practices enhanced food security and reduced vulnerability to climatic stress.

4. Socio-Economic Benefits

- CACILM improved rural livelihoods by increasing agricultural productivity and income opportunities.
- Better market access and value-chain development contributed to higher farm incomes.
- The second hypothesis regarding improvement in socio-economic conditions was found to be valid.

5. Women's Participation and Empowerment

- Women became key participants in sustainable land management due to high levels of male labor migration.
- CACILM promoted women's involvement in training, agricultural activities, and local decision-making processes.
- Gender-inclusive interventions enhanced economic and social empowerment.

6. Environmental Improvements

- Water-use efficiency improved from approximately 50% to 80% in project areas.
- Irrigation water losses declined from around 50% to 30%.
- Desertification decreased by about 8.58% between 2000 and 2020.
- Biodiversity conservation and ecological resilience improved through sustainable land management practices.
- The third hypothesis regarding environmental improvement was confirmed.

7. Community Participation

- Active involvement of local communities increased the effectiveness and sustainability of CACILM interventions.
- Community-based approaches encouraged local ownership and adoption of sustainable practices.
- Capacity-building programs strengthened community resilience and awareness.