



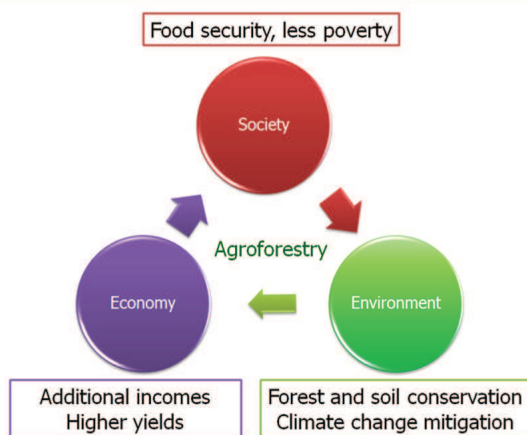
Agroforestry Practices in Kyrgyzstan

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Hypothesis: The term 'agroforestry system' is not yet adapted in Kyrgyzstan's scientific research. However, certain practices of agroforestry are already performed by Kyrgyz farmers. They could serve as a model for more sustainable farming under certain conditions.

Methods:

- literature review,
- experts and farmer interviews,
- field visits,
- profitability analysis of the selected agroforestry practice (NPV)



Results

Certain practices of agroforestry are already in use

- ✓ windbreaks,
- ✓ trees + crop production,
- ✓ trees + beekeeping,
- ✓ haymaking and collection of non-timber products in forests

Selected agroforestry practice showed higher returns in comparison to the selected conventional practice

Agroforestry has a potential for further research and practice in Kyrgyzstan:

- ✓ tool to recover degraded mountain pastures, arable lands, highland forests;
- ✓ agroforestry as climate change mitigation and adaptation measure;
- ✓ development of existing agroforestry practices;
- ✓ researching proper tree species for local natural conditions;
- ✓ overcoming of food security issues

Constraints

- Uncertainties in land ownership rights (pastures, forest use, marginal land plots)
- Lack of precise interdisciplinary research
- Limited knowledge of farmers
- Agroforestry is not recognized in the national legislation
- Lack of institutions focusing on agroforestry development



Kyrgyzstan

Location: Central Asia
Average altitude – 2750 masl.
Population: 5 663 100 (2013)

Area: 198,5 km²

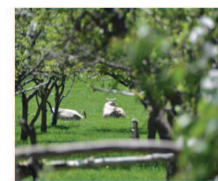
- 46% - pastures
- 7% - arable lands
- 4% - afforested area

Main problems

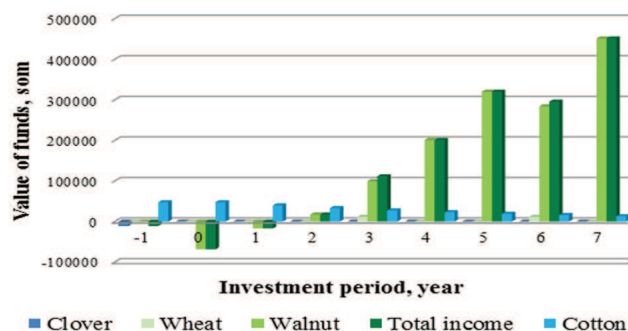
- Fodder constraints (83% of "winter" pastures degraded);
- High levels of land erosion (slope erosion, salinization);
- Conflict between forest conservation and using of forest pastures;
- Forest degradation;
- Insubstantial food security;
- Lack of knowledge of farmers about agroforestry potential;
- Agroforestry is not yet adapted in Kyrgyzstan's scientific research.

Advantages of agroforestry in Kyrgyzstan

- Less land erosion
- More fodder (use of silvopastures)
- Additional income to local communities
- Food security
- Sustainable use of forests



Chamberlain, 2014



Dzhakypbekova, 2014

Possible interventions

- Rehabilitation of eroded, salinized lands
- Slope afforestation in combination with gardening, fodder or crop production
- Improvement of given practices
- Providing incentives for using agroforestry on farms (policy)
- Dissemination of knowledge on agroforestry