



THE WORLD BANK



INTEGRATING ENVIRONMENT INTO  
Agriculture and Forestry:  
Progress and Prospects  
in Eastern Europe and  
Central Asia



## INTEGRATING ENVIRONMENT INTO AGRICULTURE AND FORESTRY

*An upcoming World Bank study titled “Integrating Environment into Agriculture and Forestry: Progress and Prospects in Eastern Europe and Central Asia” emphasizes the urgent need for domestic and external support to implement environmentally friendly practices in agriculture and forestry in Southeast Europe (SEE) and Europe and Central Asia (EECCA).*

The countries of SEE and EECCA have made good progress in the transition towards a free market economy, but urgently need to accelerate the integration of environmental concerns into their agricultural and forestry sectors. Policies and laws promoting integration have undoubtedly improved in SEE and EECCA countries (also known as transition countries), but implementation is lagging.

The agricultural and forestry sectors are vital to economic growth and poverty reduction in transition countries. They generate growth and higher income for people in rural areas, who account for 35 percent of total population, and employ over 70 percent of the population in the least developed areas of these countries. Yet, because agriculture and forestry are crucially dependent on the natural resource base, increasing productivity could have serious negative impacts on the environment.

Source:



Wild apple orchard. Jabagly, Kazakhstan

Source: Agi Kiss

According to a World Bank study intended to gauge progress on environmental integration in transition countries, implementation is lagging due mainly to inadequate policy incentives, insufficient human and institutional capacities, and lack of funding. The study report aims to make policy makers in those countries aware of the pressing need to step up progress on implementation and suggests ways of addressing those weaknesses. The report consists of two volumes: one a synthesis of major regional issues and trends, and the other a compilation of 21 in-depth reviews of SEE and EECCA countries.

**Agriculture and forestry are essential for economic growth and poverty reduction in transition countries.**

### **Consequences of failing to integrate environmental sustainability**

The study confirms the conclusion reached by the 2003 Environment for Europe Conference in Kiev: greater effort is needed to ensure environmental sustainability, particularly in EECCA. Serious issues such as soils, water and rangeland mismanagement, radioactive contamination of forests and farmland, and illegal logging are very prevalent in most EECCA countries, which are finding these problems difficult to overcome due to insufficient human and financial resources.

Regional economies and human health are being deeply affected by unsustainable agricultural and forestry practices. To cite

a few examples, salinity costs Uzbekistan around \$1 billion per year; soil erosion costs Moldova at least \$40 million per year; and human health is being adversely affected by fertilizer- and pesticide-contaminated drinking water. Technologies to solve these types of problems are available from other countries, but are often not applied.

Agriculture has much more serious impacts on the environment than does forestry, but they are not being adequately addressed in transition countries. In forestry, harvests are generally less than the annual increase in forest growth, certification of forest products is gaining ground, major efforts to control illegal logging have begun, and most countries are taking action to control fires, pests, and diseases. This contrasts with the situation in agriculture: soil erosion is worsening in nearly all countries, and initiatives to improve fertilizer management and introduce integrated pest management are mostly pilot projects. Though water use efficiency and salinity have improved somewhat from rehabilitation of irrigation and drainage systems, these objectives are not yet systematically pursued.

The privatization of farmland, one of the most drastic changes brought about by the transition to a market economy, is almost complete in some countries but continues in others. Evidence suggests that private ownership gives farmers a powerful



Source: Oliviu Pop

Protected forests, Romania

**Critical problem-solving technologies are available from other countries, yet often not applied.**



Source: anonymous

Forest damage and soil erosion, Albania

incentive to apply sustainable farming practices. As for forest land, some has been restored to private owners in SEE, but state ownership remains the norm in EECCA. However, given the public-good nature of many forest benefits, state ownership of forests is compatible with sustainable management.

### Farms, forests, and climate change

The interactions between agriculture and forestry and climate change are highly complex. Together, farm activities and deforestation account for up to 30 percent of greenhouse gas emissions.<sup>1</sup> On the plus side, the agriculture and forestry sectors offer significant opportunities for carbon sequestration (when atmospheric carbon is absorbed and stored by vegetation and soils) through afforestation (planting forests where there were none) and the adoption of sustainable farming practices. Farming and forestry are also highly sensitive to climate change, and governments should be proactively integrating climate change adaptation into agricultural and forestry sector policies, programs and investments.

<sup>1</sup> The World Bank. 2007. “World Development Report 2008”. Data from United Nations Framework Convention on Climate Change, [www.unfccc.int](http://www.unfccc.int).

The agricultural and forestry sectors have unique potential for making positive contributions to the environment, for example, by providing critical environmental services such as:

- carbon sequestration
- afforestation
- improved watershed management
- better rural landscape management
- biodiversity conservation.

Unfortunately, many of these services are still undervalued and unremunerated, and effective incentives will be needed to turn them into attractive income-generating activities.

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## Increasing awareness of environmental issues

Raising awareness of environmental concerns in transition countries is crucial, since integration is unlikely to progress unless decision makers and the general public are informed of the issues and press for change. It is also imperative that public entities (including those charged with managing agriculture, forestry, finance, and the economy) be apprised of the long-term consequences of allowing the natural resource base to be degraded. But raising awareness requires reliable data on the negative impacts on the environment, the economy, and human



Source: Joop Stoutjesdijk

Irrigation and drainage rehabilitation project, Georgia



Source: Agi Kiss

Shah Dag National Park,  
Azerbaijan

**While the potential negative side effects of poor agricultural and forestry practices have become increasingly recognized over the past decades, largely unrecognized is the unique potential these sectors also have for making positive contributions to the environment.**

health, and such evidence will be available only if monitoring systems across the region are enhanced.

Integration of environmental concerns into agriculture and forestry will not advance unless farmers and foresters are informed and trained to adopt more sustainable practices, and effective extension services are a major tool for reaching them. However, extension systems in the region vary greatly in their organization and ability to inform users on sustainability issues. In SEE, government extension systems need to be modernized and supplemented by the private sector, while in EECCA, few services are available to small, private farmers, and innovations aimed at filling the gap cost-effectively need reinforcement.

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### **Enhancing human and institutional capacity**

Adequate financial, human, and institutional capacities are indispensable for implementing integration. Important areas for capacity building and financial investment are:

- Fostering good governance, crucial for curtailing negative practices such as illegal logging,
- Promoting regional cooperation on transboundary issues such as water pollution, avian flu, and illegal logging;

- Promoting collaboration among agriculture, forestry, and environment ministries;
- Enhancing the capacity for economic analysis in environmental and agriculture ministries to more effectively demonstrate the negative impacts of unsustainable practices;
- Training agriculture ministry staff on environmental issues;
- Investing in agricultural research, education, and extension;
- Adapting agricultural technologies to local conditions;
- Training farmers to use and adopt sustainable agricultural practices.

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## Speeding up implementation

Public policies and investment can encourage the spread of good farm and forest practices. Incentives for implementation need to be enhanced, and deterrents to good practices removed. High on the list of priorities is the removal of perverse incentives such as subsidies for chemical fertilizers and pesticides, and policies that hinder private ownership of farmland. Implementing “polluter pays” and “user pays” principles would allow imposing meaningful fees on polluters and users of scarce resources such as irrigation water.

New European Union member states and accession countries (candidates to join the EU) receive powerful incentives for integration in the form of membership and generous grants, but non-accession countries, particularly in EECCA, do not. Consequently, their drive towards integration is much weaker, and they will require generous external support and incentives to speed up implementation. A little-explored but effective tool that would advance integration in EECCA is the use of trade incentives combined with rigorous certification of sustainable production. Forest certification, along with strong law enforcement, community management, and provision of alternative income and energy sources, is already an important tool in the struggle against illegal logging.

Transition countries are committed to environmental integration, as they have expressed in policy statements and action plans

**EECCA countries need financial and technical support from external sources to speed up implementation.**

such as the EECCA Environment Strategy adopted in Kiev. But many are finding it difficult to turn their commitment into action on the ground. Their governments need to re-examine policy instruments such as taxes, subsidies, and support services (research, extension, food safety, etc.) to ensure that their support to integration is consistent and cost-effective. However, they still have significant need for financial support, which could be provided by a combination of the countries' own resources, funding from donors and IFIs, and private sector partnerships.

The study makes suggestions for addressing constraints to integration and giving fresh momentum to its implementation; they are put to the consideration of all relevant ministries of the governments in the region, as well as NGOs, regional organizations, and the IFI and donor community.



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