

Executive Summary

As part of its contribution to the Environment for Europe meeting in Belgrade in October 2007, the World Bank has undertaken a review of the Europe and Central Asia Region³ with **the objective of raising awareness among policy makers of the need to accelerate and enhance implementation of environmentally sustainable practices in the agricultural and forestry sectors in SEE and EECCA, and to provide recommendations for doing so.** The process of incorporating considerations of environmental sustainability and resource conservation into sector policies, strategies, programs, and investments will be referred to as *integration* or *mainstreaming*. This report represents Volume I of the study and provides a synthesis of major regional issues and trends, with broad recommendations for future directions and priorities. It is based on an original set of 21 in-depth Country Reviews prepared by the team with the support of local specialists in each country. The detailed Country Reviews will be published separately in Volume II.

Agriculture and forestry continue to be very important for economic growth and poverty reduction in transition countries. The sectors contribute about 15 percent of GDP and support the 35 percent of the population that is rural in these countries. This segment of the population faces a higher risk of poverty than that in urban areas, and accounts for about 65 percent of the poor. This situation creates demands on agriculture and forestry to generate higher growth and income for rural residents. The gap in agricultural productivity

between transition countries and OECD nations remains large. Yet, because agriculture and forestry are particularly dependent on the resource base, closing the productivity gap has important implications for the environment.

To ensure the sustainability of the resource base, agriculture and forest management has to improve significantly in these countries. Issues of primary concern include soils management, nutrient conservation, water management, pest management, sustainable forestry, forest health, and illegal logging. Other issues include rangeland and watershed management, food safety, organic farming, carbon sequestration, and climate change adaptation.

Agriculture and forestry policies, laws, and strategies that promote integration have improved, but more needs to be done on implementation. The importance of environmental protection is usually recognized in statements of environmental, agricultural, and forestry policy, as well as in the resulting strategies, action plans, and legislation. Nevertheless, a lack of capacity,

³ The region includes nine countries of Southeastern Europe (SEE): Albania; Bosnia and Herzegovina; Bulgaria; Croatia; FYR Macedonia; Montenegro; Romania; Serbia; Turkey; plus Kosovo (which is a province of Serbia under autonomous administration of the UN consistent with UNSC 1244) as well as twelve countries of Eastern Europe, Caucasus and Central Asia (EECCA): Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

limited funding access, and insufficient incentives are impeding progress on implementing these strategies.

Failure to integrate environment into agriculture and forestry will have major economic and human health implications. For example, salinity in Uzbekistan is estimated to cost that country \$1 billion per year, and soil erosion is estimated to cost Moldova at least \$40 million per year. Furthermore, it is now known that drinking water contaminated by agricultural nutrients and pesticides has adverse effects on human health, although the extent of the long-term impacts are just beginning to be understood. The irony is that the solutions to most of these problems are known, and the technology to address them is available from other countries, yet the necessary measures are often not taken.

Agriculture and forestry can also be important providers of environmental services. Agriculture and forestry have unique potential for making positive contributions to the environment. Environmental services provided can include sequestering carbon, managing watersheds and rural landscapes, and preserving biodiversity. But currently, many of these services are undervalued and unremunerated. The right incentives should be put in place to encourage the development of more sustainable production systems and the provision of environmental services.

The interactions between the agriculture and forestry sectors and climate change are highly complex and deserve special attention. Together, agricultural production and deforestation account for up to 30 percent of greenhouse gas emissions (World Bank 2007d). But the sectors also offer important opportunities for carbon sequestration through afforestation and improved agricultural techniques, and incentives for these should be increased. Agriculture and forestry are also highly sensitive to climate

change, and it is critical for EECCA and SEE countries to build awareness and capacity for the proactive integration of climate change adaptation into agricultural and forestry sector policies, programs and investments.

Accelerating implementation of environmental integration will require increased efforts by EECCA countries. This study confirms the conclusion on agriculture and forestry reached by the 2003 EfE Conference in Kiev, that greater effort was needed to ensure environmental sustainability in the EECCA sub-region. Major issues such as water and rangeland management, radioactive contamination of forests and farmland, and illegal logging are much more prevalent in EECCA countries (with important exceptions). Membership and accession into the EU are major incentives for integrating environment into agriculture and forestry. However, in non-accession countries such as those of EECCA, the drive towards integration is much weaker, and generous external support and incentives will be required.

More effort is needed to address the impact of agriculture on the environment. Agricultural impacts on the environment are much more significant than those of forestry, but they are being less adequately addressed in both sub-regions. In the forestry sector, regional countries generally harvest less than the annual growth increment (though overharvesting does occur at the local level), and certification of forest products is gaining ground. Progress on the widespread problem of illegal logging is less certain; although major efforts have begun, it is too early to tell how successful they will be. In agriculture, soil erosion is worsening in nearly all countries. Initiatives to improve nutrient management and introduce integrated pest management have been mostly at the pilot project level. While irrigation rehabilitation projects have had some success in improving water use efficiency and reducing salinity, these are not yet major objectives.

Increasing awareness among decision makers and the general public is an important first step towards accelerating integration of environment into agriculture and forestry.

Change is unlikely unless the main stakeholders are well informed of the issues and press for change. To this end, environmental monitoring systems need to be enhanced to provide more quantitative data over time, and indicators should be standardized across countries. Implementing the Aarhus Convention in all countries will improve public access to this information. Ministries of the environment need to step up their efforts to inform other public agencies—including those responsible for agriculture, forestry, finance, and the economy—of the long-term consequences of allowing the resource base to be eroded. This will require more evidence of the negative impacts not only on the environment, but also on the economy and human health.

One of the most important tools for increasing awareness is an effective agricultural advisory and extension service. Agricultural extension systems in the region vary greatly in their mode of organization and their effectiveness in informing farmers on sustainability issues. In SEE, basic government systems are in place but need to be modernized and supplemented by the private sector. In EECCA, there are few services available to small, private farmers, and a number of innovations aimed at filling the gap cost-effectively need to be strengthened. In SEE, services to private forest owners need to be improved as well.

The region needs to build up the financial, human, and institutional capacities for implementation. Although just as important as increased investment, institutional change is often more challenging. Agriculture ministries need to strengthen their capacity by training staff on environmental issues and, if necessary, establishing environmental units. Environmental and agriculture ministries need to enhance their

capacity for economic analysis to better prioritize investments and more effectively demonstrate the negative impacts of unsustainable practices. Developing a Code of Good Agricultural Practices is a step in the right direction, but farmers need training to adopt these practices, and technologies must first be adapted to local conditions. This requires investing in improved agricultural research, education, and extension systems. Curtailing negative practices such as illegal logging requires good governance, which, according to published indices, is still lacking in many countries of the region. Collaboration among agencies responsible for agriculture, forestry, and the environment needs to improve.

Incentives for implementation need to be enhanced, and disincentives to good practices removed. Governments should use policy instruments and public expenditures to encourage the spread of good agricultural and forestry practices. The first priority should be to eliminate perverse incentives, such as subsidies for chemical fertilizers and pesticides, or policies that hinder or undermine private ownership of agricultural land. Governments need to implement the “polluter pays” and “user pays” principles in agriculture and forestry, so that meaningful fees are assessed on polluters and on users of scarce resources such as irrigation water.

The question of incentives is particularly important for non-accession countries. New EU member states and accession countries receive powerful incentives for integration in the form of membership and generous grants. However, non-accession countries, particularly those in EECCA, do not benefit from the same incentives and have much more limited resources. Therefore, western countries and international financing institutions (IFIs) must do more to encourage integration efforts in these countries through grants and loans. These will be more effective if they are integrated into the countries’ own strategies.

A tool that has been little explored but has significant potential is the use of trade incentives, combined with rigorous certification of sustainable production. This would require western nations to open their markets to more agricultural imports from EECCA, support the establishment of certification systems in those countries, and educate consumers and importers in their own countries. However, even new EU member states, when given the option, have demonstrated a tendency to employ European Union Common Agricultural Policy (CAP) funds for income support rather than for environmental investments. More should be done to encourage countries to use CAP Pillar 2 funds for their intended purpose.

Countries should accelerate integration by scaling up successful pilot initiatives and disseminating good practices. There have been a number of successful pilot initiatives in the east, including for nutrient management, integrated pest management, erosion control, and drylands management. However, these initiatives have often been sponsored by external development agencies, and more needs to be done to scale them up and integrate them into national forestry and agricultural development strategies. In addition,

regional knowledge-sharing should be increased so that representatives of countries within a sub-region can establish networks that meet and communicate regularly to share experiences and ideas. Several related issues—from water nutrient pollution and avian flu to illegal logging—are trans-border in nature, providing additional impetus for regional cooperation.

Countries of the region have already shown their commitment to integrating environmental concerns into agriculture and forestry through their policy statements and action plans, including the EECCA Environment Strategy adopted in Kiev. Many, however, are finding it difficult to turn those commitments into action on the ground. Significant needs for investment remain, and these should be supported by a combination of the countries' own resources, funding from donors and IFIs, and private sector partnerships.

This report makes a number of suggestions for addressing constraints and giving momentum to such implementation. These are summarized into ten overarching recommendations in Table 1 for consideration by all relevant ministries of the governments in the region, as well as NGOs, regional organizations, and the IFI and donor community.

Table 1: Recommendations

Recommendation	Responsibility	Duration
1. Having expressed their commitment to sustainable agriculture and forestry through policy declarations, strategy documents, and initial programs, regional countries now need to advance to full-scale implementation.	Governments, led by ministries of agriculture and forestry.	Short term
2. Further analyses of the economic impact of unsustainable agriculture and forestry management should be used to persuade policy makers in economic and sectoral ministries of the priority for action. Economic cost-benefit analysis should be increasingly integrated into decision making.	Ministries of environment, agriculture, and forestry, supported by universities and NGOs.	Short term
3. Given that non-EU accession countries face particular difficulties in reaching the goals of the EECCA Environment Strategy, they will need to mobilize all possible domestic and international support.	Governments, led by ministries of environment, agriculture, and forestry.	Medium term
4. The EU should enhance its role as the main driver of progress on mainstreaming by expanding support to the EECCA countries, especially in foundation issues of governance, awareness, capacity building, and incentives.	EU, EECCA governments.	Medium term
5. The World Bank and other IFIs and donors should build on the foundation with well-targeted projects in all regional countries, scaling up successful pilots where available.	World Bank, other donors, regional governments.	Medium and long term
6. Governments should re-examine their policy instruments, including taxes, subsidies, and support services (research, extension, food safety, etc.) to ensure that their support to integration is consistent and cost-effective.	Governments, with donor support.	Medium term
7. Certification systems for food and forest products should be encouraged and supported as an important driver of sustainable management, including the powerful incentive of market access.	Governments (including trade ministries), certification bodies.	Medium term
8. Pilot projects in mainstreaming should be evaluated and their results disseminated; where warranted, their success should be scaled up to achieve national impact.	Ministries of agriculture, forestry, and environment, and donors.	Medium and long term
9. Regional mechanisms for the exchange of experience among countries should be strengthened.	Regional organizations (EU, UNECE, OECD), new EU members, and governments	Medium and long term
10. While continuing efforts to mitigate climate change, including examining the potential of abandoned farmland for reforestation and carbon sequestration, governments should begin development and implementation of climate change risk management adaptation plans..	International organizations (UN, World Bank, EU, OECD), carbon funds, governments, donors.	Medium and long term