

**EASTERN
EUROPE AND
CENTRAL ASIA**

**RURAL DEVELOPMENT
ACTION PLAN**

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**Environmentally and Socially Sustainable Development Unit
Europe and Central Asia Region**

ACRONYMS AND ABBREVIATIONS

CAS	Country Assistance Strategy
CDF	Comprehensive Development Framework
CEE	Central and Eastern Europe
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia Region
ECSSD	Environmentally and Socially Sustainable Development Unit
ERR	Economic Rate of Return
ESW	Economic and Sector Work
EU	European Union
FRR	Financial Rate of Return
FRY	Former Republic of Yugoslavia
FSU	Former Soviet Union
GDP	Gross Domestic Product
GEF	Global Environment Facility
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
KG	Kyrgyz Republic
KZ	Kazakhstan
LIL	Learning and Innovation Loan
M&E	Monitoring and Evaluation
N/A	Not Available
NEAP	National Environmental Action Plan
NGOs	Non-Governmental Organization

OECD	Organization for Economic Cooperation and Development
O&M	Operation and Maintenance
PAL	Program Adjustment Loan
PHRD	Japanese Trust Fund for Human Resource Development
PRSP	Poverty Reduction Strategy Program
RDP	Rural Development Project
SAL	Structural Adjustment Loan
SAPARD	EU Rural Investment Funds
SECAL	Sector Adjustment Loan
SIF	Social Investment Fund
TJ	Tajikistan
TM	Turkmenistan
UZ	Uzbekistan
WSS	Water Supply and Sanitation
WUA	Water Users Association

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The Rural Action Plan presented below supplements extensive strategic work undertaken by the ECA Region over the last two years. “A Rural Strategy” and “A Natural Resources Strategy” were distributed at the Annual Meetings in Prague held in October 2000, and an “Environment Strategy” was issued in the summer of 2001, together with three key additional documents: “An Integrated Rural, Environment and Social Development Strategy,” “Making Transition Work for Everyone: Poverty and Inequality in Central Asia,” and “Anti-Corruption in the Transition: A Contribution to the Policy Debate.”

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EXECUTIVE SUMMARY

Summary

This rural strategy paper aims to document the approach of the Bank's Eastern Europe and Central Asia Region (ECA) to stimulating broad-based and sustainable growth in productivity in the rural economy of the region, and to improving social well being in rural areas.

About half of the poor in ECA live in rural areas, a lower share than most regions, and ECA also has a lower poverty rates than Africa or Asia. However, poverty and inequality have increased faster in ECA than anywhere else over the past decade. In the majority of ECA countries, there are more poor in rural than in urban areas and the rural poverty incidence is higher in virtually every ECA country. Thus, making a dent on poverty in the Region will require continued support to rural areas and this paper lays out a strategy for that work. The focus will vary widely between countries, depending on poverty levels as well as growth potential and willingness of client countries to work with the Bank.

The strategy addresses rural development broadly, covering not only increased agricultural productivity, but also off-farm enterprise development, social and physical infrastructure, sustainable land, water and forest management, and natural and financial risk mitigation. It aims to learn from experience and provide support to replicate and scale up approaches which have worked (such as community-based irrigation, forestry and watershed management, and micro-credit, farm privatization, restructuring and land registration, dam safety and flood protection, and rural water supply). It aims also to develop models in areas where success has so far been limited, such as marketing and processing, off-farm enterprise development and employment creation, and affordable rural heating systems and social services.

This rural strategy recommends a continued focus on investment lending to support community based approaches, institutional capacity development, sustained policy reform and improvements in living standards. It recommends adjustment lending only when there is broad ownership for reform, and it emphasizes the increasingly important role of partnerships and broad-based poverty reduction strategies. Development of this strategy benefited from consultations with stakeholders, who emphasized the need for simple project design, and for realistic reform agendas.

1. Regional Overview

A. Economy

The Eastern Europe and Central Asia region has 415 million people (7% of the world's total) of whom 35% live in rural areas (compared with 54% world wide). It has 20% of the world's arable land and 24% of its forests. The region is characterized by its diversity, with its countries differing widely in climate, natural resource base, income and progress with economic and social reforms. Incomes vary from nearly US\$ 10,000 (Slovenia), with 10 countries preparing to join the European Union, to US\$380 (Tajikistan and Moldova). The economies in the north and west are heavily industrialized, with agriculture contributing 10% or less to Gross Domestic Product (GDP), even though rural populations are 25-40% of total. Those further south and east are more rural, with agriculture contributing 30% or more

of GDP in most Central Asian countries, but also in Albania and Armenia, and most people living in rural areas.

All countries have struggled with the transition to a market economy, and in all there were sharp drops in GDP after 1990. While in Central Europe GDP levels are now well above those of 1990, in many Commonwealth of Independent States (CIS) countries they remain below their pre-transition levels (e.g., in Moldova and Armenia they are less than one-third the levels of the late 1980s despite reasonable progress with economic reform). In all transition countries, the rural service economy was poorly developed; production and processing were closely integrated, and there was a focus on increasing output rather than on responding to consumer preferences. In addition, the inherited systems are not necessarily the most efficient, particularly with regard to energy use, making costs of operation higher than needed. In most transition countries, the populations have come to expect a level of service from their physical infrastructure that is not affordable at current levels of income. The challenge now involves reducing consumption and services levels to those compatible with current income, and developing or introducing new, less expensive technologies (especially for power, heat, water supply and roads).

B. Social Issues

While the Region is highly diverse, there are some common features. All countries of the region except Turkey have experienced profound social changes over the last 10 years, following the break-up of the Soviet Union and the move to a market economy. There has been civil unrest and war in several countries (Croatia, Bosnia, Yugoslavia, Tajikistan, Azerbaijan, the North Caucasus). There has been a deterioration in law and order with widespread consequences, including protection rackets, bribery and extortion.

Although absolute poverty is lower in ECA than in other regions, poverty and inequality have increased faster than elsewhere, even in the most successful economies. On average, about 50% of the poor live in rural areas, but rural poverty incidence is higher than urban in almost every country and there are more rural than urban poor in over half of the Region's countries. The largest absolute number of rural poor live in Russia, Poland, Ukraine, Uzbekistan and Romania, in that order.

Although poverty has increased, rural populations have gained greater power and influence over decisions that affect their lives, through improved access to land and freedom in how to use it, and through development of democratic local institutions.

There are a number of social issues that have emerged in rural areas. Many of these have to do with the break up of the former collective and state farms. For example, there are issues associated with the equity (or lack of) in allocation of land rights and distribution of non-farm assets, and with asymmetric power relationships in leasing arrangements between former collective farm managers and farm members. In many instances, collective farms have simply collapsed, leaving many underemployed in areas where there are few alternatives for employment. Most privatized farms have divested their social assets (e.g., schools, clinics, community centers) and municipalities have lacked the financial and institutional capacity take them over. Many specialized farm workers (e.g., tractor operators, or agronomists) on large farms have suddenly had to become general farm owners/managers on very small farms and have found themselves without the relevant skills or knowledge.

Except in Central Asia, population growth is stagnant or negative, but there has been large scale migration of populations from rural areas to cities in some countries and the reverse in others (e.g., Romania, where agriculture has become a safety net).

C. Rural Policies and Rural Institutions

Prices and trade in most countries have been liberalized, industries have mostly been privatized and land privatization is well advanced. There has been less progress in building up the institutions, governance framework and investment environment for businesses, banking systems and land, labor and capital markets to thrive even in urban areas, and rural areas lag even further. The “right” balance between public and private sector responsibilities is still emerging in most countries, and civil servants have seen large declines in real salaries. Local institutions, in particular, are weak; in many countries decentralization has not taken place and little authority has been devolved to local levels. In others, informal authority outside of the legal framework allows local officials to exert control over market decisions.

The Central European countries, geographically and historically closer to Europe, have found it easier to reach consensus for economic reform than the countries further east, which are also further from western markets. For the Central European countries, policy is now dominated by issues related to EU accession, including the need to achieve the quality and safety standards and competitiveness required to participate sustainably in the common market. As the European Union (EU) Common Agricultural Policy continues to evolve, there is no agreement as to the right agricultural policy framework for pre-accession countries during the transition. Tensions have emerged between policies aimed at achieving economic efficiency and social objectives simultaneously, as is the case for many EU agricultural policies.

For the CIS, the key issue remains property rights, especially in land, and the ability to engage in land transactions. In the Caucasus, and especially in Central Asia, water resource policy is a priority. All countries struggle with the tradeoffs between cost recovery, privatization and poverty reduction objectives in developing their policy agenda.

D. Natural Resources, Agriculture and the Rural Economy

There is wide divergence in the natural resource base and in agro-climatic conditions across the countries of the Region. While the north and west have, in general, ample rainfall and plentiful forest resources, soils are only of moderate quality and growing seasons are short. The low lying areas are vulnerable to flooding. Livestock contributes 30-40% of agricultural GDP and forests and forest industries are a major employer. The Central belt, stretching from Hungary through parts of Romania, Moldova, Ukraine, Southern Russia and Northern Kazakhstan, has some of the most fertile soils in the world. Together with the Southern Cone of Latin America, this area has the potential, if land is sustainably managed, to increase production of basic food crops significantly, and to help meet the doubling of world food demand projected over the next 25 years. In fact, the gap between actual and potential production in these areas is one of the largest in the world.

The farming systems of South Eastern Europe, Turkey and the Caucasus are diverse and dependent on supplementary irrigation in the drier areas; arable land is scarce in the mountainous regions which are more dependent on livestock, but the sub-region can grow a wide variety of high value “niche” crops adapted to micro-climate and topography. The sub-region is especially vulnerable to natural disasters, including earthquakes but also droughts and floods. The area’s coastlines, forests and landscapes also have great tourism potential and rich ecosystems. In the arid and semi-arid Eastern Caucasus and Central Asia, farming is largely dependent on irrigation. Water and land resource management is the major issue, and deterioration of irrigation and drainage infrastructure, dam safety, water-logging and salinity problems, and disputes regarding water use amongst the Aral Sea Basin riparians are a major constraint to economic recovery.

Agriculture has become an important social safety net as industry has contracted and people have returned to the land to survive. The share of agriculture in GDP has increased in many countries. Land has been privatized over most of the region, in some cases in small, fragmented plots, and administrative complexities with land titling have made it difficult for land to be used as collateral, and for transparent land markets to develop. A special feature of Russia, Belarus and Ukraine is garden plots (of 1 ha or less) cultivated by both rural and urban populations for subsistence, but also for small-scale commercial production. These contribute the great majority of fruit, vegetable, potato and milk production in these countries; they are dependent for cheap inputs on the large-scale former collective farms, which have mostly been privatized but still face soft budget constraints.

Privatization of collective farms that provided all input procurement and marketing services, and of state-run marketing firms and agro-processing agencies, has led, in many instances, to their collapse without private substitutes emerging to fill the void. Lack of functioning capital markets and a poor business environment have prevented rapid entry of new enterprises. Financial risk mitigation systems are little developed.

E. Social and Infrastructure Services

Literacy in ECA is almost universal. Health indicators are quite good, although there have been sharp declines in male life expectancy especially in Russian and Ukraine, and infectious diseases such as tuberculosis are re-emerging as health systems have deteriorated. The quality of education and health services is generally poorer in rural areas than in urban. In most ECA countries, however, unlike in other regions, there is an oversupply of schools and hospitals in rural areas. Priorities are therefore on consolidation of supply, a reorientation toward primary education and health care provision, and an upgrade of quality through financing of equipment, and incentives for teachers and health care providers to stay in rural areas. Reforms to reduce costs, especially in health care, are required. In some areas, especially Central Asia, uneven immunization coverage and nutritional deficiencies need to be addressed.

In general, rural infrastructure in ECA is better than in most regions, but is deteriorating. The road infrastructure is mostly adequate, though less good in mountainous areas. Road administrations tend to have a bias toward high technical standards rather than cost efficiency, and funding for road maintenance is grossly inadequate. Most transport services have been privatized but there are law-and-order problems with frequent bribes extracted along transport routes, greatly increasing the cost of rural goods. Basic telecommunications are still far less developed in rural areas than urban and the increased use of the internet for information dissemination (including prices, markets, and distance learning) makes telecommunications an increasing priority, especially in sparsely populated areas. Access to energy for heating and to weatherproof housing is essential in ECA countries because the winters are long and cold. Most rural households have access to electricity, but not for heating. Many have connections to the gas networks, but do not receive service. In a number of countries, this has led to deforestation, with damaging effects on the environment.

2. Sub-Regional Strategies

A. Lessons Learnt

ECA's approach to helping client countries with the transition has evolved. The focus in the early 1990s was on liberalization and privatization of assets, on deregulation and on reducing the role of government in the economy, with the main emphasis on growth and less direct intervention for poverty

reduction. The Bank argued that investments should be supported only when policy reforms were well advanced. Since then, ECA staff have learned the following lessons.

- Fundamental reform takes time, sequencing is crucial, and privatization without a supporting institutional and regulatory framework does not necessarily lead to development of a market economy and prosperity. During regional consultations stakeholders emphasized that the Bank reform agenda has often been too ambitious in terms of pace. Furthermore commitment to reform by technocrats and academics is insufficient; and that without support from elected representatives and civil society, reforms are frequently not sustainable.
- Delaying investments until policies are right can reduce the ability to help large numbers of poor and can sometimes significantly increase the eventual costs of investments (e.g., rehabilitation of deteriorated irrigation and drainage infrastructure). Support for modest investments, combined with modest policy and institutional reform, is often a successful approach, if economic and financial returns are acceptable.
- Simple project design usually works best (and regional stakeholders made this point). Successful projects should be geographically focused if they support a complex agenda (e.g., community based watershed rehabilitation, rural infrastructure, land reform and farm restructuring with redesign of field irrigation systems) or should support only one area for intervention if they are nationally focused (e.g., community-based micro-credit). Complex, national-level projects have worked less well.
- The weakest dimension of projects in the past has been development of institutional capacity and sustainability of project activities after withdrawal of Bank financing. Improvements in these areas can come through working with local institutions and through supporting bottom up approaches such as community-driven project identification and implementation. Institutional capacity building and community driven activities work best when supported by investment rather than adjustment lending.
- Among Bank staff there is insufficient focus on rural energy, rural infrastructure (other than water supply and sanitation), rural health, rural education, and rural private sector development. It has proven difficult to create synergies between sectors, despite the existence of country teams. There are personnel, administrative and budget disincentives to carrying out cross-sectoral work.

B. Strategic Overview

The Region's objective is to increase broad-based sustainable growth of productivity in the rural economy and to improve social well being. In order to take account of the diversity of the region, the strategy paper lays out **subregional** strategies for seven country groupings. These are:

- Central Europe and the Baltics (including Slovenia)
- Romania/Bulgaria/Moldova
- The Balkans (Albania, Croatia, Yugoslavia, Macedonia)
- Turkey
- The Caucasus
- Central Asia
- The Regional Seas

The paper also provides thematic or **subsectoral** strategies for support in five priority areas where clients have indicated they want the most support, where the Bank/IDA has a comparative advantage, and where there are models that work. These include:

- Increasing agricultural productivity and value added
- Supporting private rural enterprise development (marketing, agribusiness, other rural business)
- Improving physical and social infrastructure
- Improving land, water and forest management, and
- Mitigating risks to rural people from natural, man-made and financial disasters

C. Guiding Principles

Client need, interest and capacity will be key drivers of the program and will help to determine priority countries and sectors. Need is a function of per capita income, geographical and social endowment and economic performance; interest depends on the willingness on the part of client countries to work as partners, and to borrow; and capacity includes the governance framework and institutional capacity of the client country to use Bank support. Also considered are: (i) the level of poverty (where there are the largest number of poor that can benefit); and (ii) economic potential (based on current development status, natural resource endowment and competitiveness).

In ECA, rural and urban poor are about equal in number and the overall program for the Region should be balanced (unlike other Regions of the Bank, where, on average, 70% of the world's poor live in rural areas and rural issues require a disproportionate level of attention). This strategy is aimed at identifying those priority countries where rural poverty is of particular importance (either in absolute numbers or in much higher incidence rates) and at developing approaches for addressing it.

In countries where the majority of the poor are rural (Poland, Romania, Bulgaria, Kazakhstan, Uzbekistan, Macedonia, Bosnia, Albania, Azerbaijan, Moldova, Kyrgyz Republic, Tajikistan, Turkmenistan, Hungary, Lithuania), provided there is interest of the part of the country ECA should support significant programs in rural areas. In certain EU accession countries, other sources of financing are increasing but rural poverty remains quite high, especially in Poland, Romania and Bulgaria. In these countries ECA should continue significant support for rural development.

In reluctant reformers (Belarus, Uzbekistan and Turkmenistan), ECA should continue dialogue and support projects to help implement reforms, as well as key infrastructure rehabilitation and projects with clear social and environmental benefits. In Armenia and Georgia, poverty levels are high overall, and ECA should continue to support rural development as part of a balanced, broad-based growth strategy. Russia and Ukraine also have large numbers of rural poor as well as rural growth potential.

Bank support for rural development is less of a priority in countries like Estonia, Croatia, Slovenia, Hungary, Czech Republic, and Slovakia, though in all of these countries, rural recreation and tourism will be important for growth and will require sustainable management of the rural landscape.

The following principles provide useful guidance for both overall and sectoral support:

- ECA will work with clients to facilitate development in all dimensions of livelihoods in rural space, not just agriculture and related activities.
- There are trade-offs between equity and efficiency considerations. ECA will accept that satisfactory, rather than optimal, economic returns on investments may best reach poverty

reduction objectives. The strategy also takes into account political economy and social well-being, and acknowledges that some reforms may have to be crafted differently or go more slowly than pure efficiency considerations would dictate.

- ECA will try to balance the tension between traditional, top-down approaches to physical and social infrastructure development based on rational planning, versus community-driven approaches which reflect local priorities but may not fit with efficiency criteria for expenditure choices, and will try to integrate the best of the two approaches.
- There are trade-offs between short-term social well-being and longer-term economic benefits, and between short-term production maximization and sustainable natural resource management. The strategy aims at balancing these considerations and not pursuing either extreme.
- In general, liberalization of prices and trade, and privatization of farms and enterprises, remain prerequisites for sub-sectoral investments. However, where the economic rates of return for an investment are good, where the investment would help substantial numbers of rural poor, where delays would further increase the costs of that investment, and where the rural sector is “net-taxed,” ECA will support modest investments, combined with modest reforms.
- Borrowers have legitimate concerns that the move to a market economy from the previous socialist system brings considerable risks and uncertainty. These require specific attention, particularly when many of the risk mitigation instruments of market economies are not yet available. These considerations will be explicitly recognized, and ECA will work with clients to develop approaches, systems and instruments to mitigate risks in rural areas cost effectively.
- There will be an emphasis on institutional development, capacity building, and sound governance, since institutions play a key role in bringing about change.
- ECA will emphasize the involvement of local populations in identifying, designing and implementing projects
- ECA will be more willing than in the past to acknowledge that there may be a greater role for governments than anticipated at the beginning of the transition, and will work to find efficient and rational ways to use the public sector to support growth and poverty reduction.

D. Sub-Regional Action Plans

Every country in ECA has special features. Nevertheless, in order to simplify the strategy, the region has been divided into seven “sub-regions” which share several common characteristics and have generally similar priorities.

The Central European countries (Poland, Slovakia, Czech Republic, Hungary, the Baltics (Latvia, Lithuania and Estonia) and Slovenia: These countries have generally completed the transition to a market economy and the investment climate is relatively good. The strategy is to help these countries prepare for EU accession by improving food quality and safety standards, developing local institutions, improving rural infrastructure and promoting non-farm investment and tourism in rural areas and

environmentally friendly land management. ECA will also continue to assist with flood management and broader risk mitigation. Overall support will decrease as EU financing becomes more available.

Romania, Bulgaria and Moldova: These countries, with temperate climate, good soils and varied topography, have considerable agricultural, livestock and forest potential and landscapes favorable for tourism and recreation. Rural poverty incidence is much higher than urban. In Romania and Bulgaria, there is the best “confluence” of need, capacity and willingness to work with the Bank, and Bank support should cover the broad rural agenda.

The strategy is to promote broad-based rural growth by continuing to support policy reforms and institutional reforms including decentralization, building on land privatization to support creation of viable land markets and developing sustainable rural financial services including risk-reducing instruments. ECA aims also to encourage more effective advisory, research and agricultural support services, invest in community-based rural infrastructure and irrigation systems, promote sustainable forest management during the forest land restitution process, and support environmentally-friendly farming practices and protected area and landscape management. The Bank also supports risk mitigation and disaster management, especially flood protection and earthquake preparedness, and consolidation in rural health care and education facilities with an emphasis on developing low cost service provision.

The Balkans (Croatia, Bosnia, Yugoslavia, Albania, Macedonia): Because of the diversity in their recent history, a distinction is made between Albania, and the countries which were once part of the Federal Republic of Yugoslavia. The priorities in Bosnia, Macedonia, Croatia and, eventually, Yugoslavia, are to assist with post-war economic recovery, restore trade links with Europe including opportunities for small-scale commercial farming for niche markets, develop land markets to help restore sustainable forest management, processing and trade, and to capitalize on the outstanding natural beauty of these countries for rural tourism development through support for rural landscape conservation.

In contrast, Albania is a very poor country with a large rural population and strong local social cohesion, and a large number of very poor rural people. Here there is also a strong confluence of need, capacity and willingness to work with the Bank. The Bank strategy is to maintain a large program focusing on community-based rural development, including micro-credit, participatory irrigation, community-based forest, range and watershed management, advisory services, land titling, fisheries, protected landscape management, and improved social and physical infrastructure. Unlike in most other sub-regions of ECA, in Albania, there is a need to increase the supply of schools and to extend health outreach.

Turkey: Turkey is undergoing far-reaching economic reforms, it has a dynamic private sector and is preparing for EU accession. Its agricultural economy and topography are highly diverse. Priority interventions should be aimed at reducing distortionary subsidies on agricultural production and state-owned cooperatives with general income support measures and private enterprises. Other priorities include improving landscape management for the growing recreation and tourism industry, introducing more sustainable water, land and forest management, and improving environmental standards in food and livestock production. Because Turkey is vulnerable to drought and more importantly to devastating earthquakes, development of adequate planning and mitigation measures is a priority. Finally, ECA will emphasize continued decentralization of rural health care and investments in improved rural education for girls as a priority.

Russia, Belarus and Ukraine: While growing seasons are short overall, Ukraine and Southern Russia have some of the best soils in the world. Their fertility, however, is threatened by outmoded farming practices and the gap between actual and potential production is enormous. These countries, along with those in the Southern Cone of Latin America are uniquely placed to help meet the large

expansion of world food demand projected for the first quarter of the 21st century. Russia accounts for 22% of the world's forests and forest resources are abundant also in Belarus and northern Ukraine. While these countries have more urban than rural poor, because of their large rural populations ECA cannot make a dent in the poverty rate for the Region without addressing rural poverty in these countries. Dialogue with these countries has been mixed.

ECA priorities are aimed at increasing productivity in rural areas by improving the investment climate especially for agro-processing and sustainable forest utilization, through removing barriers to regional trade, through reducing hidden subsidies, through developing sustainable financial rural services, and through greater use of investment risk guarantees. ECA also supports completion of farm restructuring and creation of functioning land markets, and sustainable land and water management, in particular improved forest management, improved agricultural productivity including improved food safety, landscape management and reduction of run-off to the Black Sea. The Bank also seeks to shift the focus in health care more toward primary and outpatient care serving rural areas, and to improve rural infrastructure provision. Where the policy environment is difficult the programs will be modest, with the aim of maintaining dialogue and supporting regionally-focused pilot operations which demonstrate improved practices and new institutional approaches, which support specific reforms, and which have clear environmental and social benefits.

Georgia, Armenia and Azerbaijan: These mountainous countries with varied topography and ecosystems and beautiful landscapes have limited agricultural land, much of it requiring supplementary irrigation. Although they are well advanced with policy reforms, the political and governance environment is difficult and the investment climate poor. ECA has been engaged in a broad set of interventions. Priorities are narrowing down to water and land management, including irrigation and drainage, soil conservation and watershed management, sustainable forest management, disaster planning and mitigation (dam safety, earthquakes, dams and floods), landscape management, advisory services and rural finance. There should be increased emphasis on rural infrastructure, both directly at the community level, and indirectly through systemic interventions, and the shift in emphasis toward primary health care in rural areas should be supported. A particular challenge remains improvement of the environment for marketing and trade with neighboring countries.

Uzbekistan, Turkmenistan, Kazakhstan, Tajikistan and Kyrgyz Republic: Seventy five to 80 percent of the poor in these countries live in rural areas (except for Kazakhstan where the proportion is 60 percent). High mountains in the south provide opportunities for water storage and contain unique ecosystems. Most of the region's population lives in the arid lower basin of the Amu and Syr Darya Rivers, and the region is water-scarce. Except for livestock grazing, the rural economy is largely dependent on irrigated agriculture which accounts for 90% of water use. The main issue is rapidly deteriorating irrigation and drainage infrastructure which threatens the livelihoods of 26 million people on eight million hectares of irrigated land.

In the Kyrgyz Republic and Tajikistan the program is limited by the IDA envelope. The need and the willingness to work with the Bank are high but capacity is limited and there are governance difficulties. In Uzbekistan there is a difficult policy dialogue (production, prices and trade are not yet liberalized) but high need and reasonable capacity to implement.¹

¹ In Turkmenistan there is at present little dialogue with government. The priorities, should the situation improve, would include improved irrigation and drainage rehabilitation and improved land and water management, crop protection and support for rural infrastructure.

The priority in Tajikistan and Uzbekistan, in addition to continued support for policy reform, is on irrigation and drainage rehabilitation to improve land and water productivity, and on farm and enterprise privatization and post-privatization assistance, complemented by rural financial services. In Kyrgyz and Tajikistan in addition there needs to be a focus is on community based approaches to improving productivity, enterprise development and rural infrastructure, and to sustainable watershed management, including dam safety, flood and drought management. An additional concern for all three countries is improvement the quality and cost-effectiveness of social services and basic education. In Kazakhstan, the priorities are in the areas of improved competitiveness and processing for private farming, agricultural support services, sustainable pasture and forest management, and continued improvements in irrigation and water resource management. Overall an additional priority concerns removal of barriers to regional trade.

Regional Seas: Sustainable management of the ECA's regional seas and river basins poses special challenges. For the **Aral Sea Basin**, the strategy is to help countries improve irrigation and drainage management within individual countries, while balancing the needs of the lower riparian countries for water in the summer for irrigation with those of the upper riparians for hydro-electricity in the winter, and maintaining an adequate water flow to the Aral Sea to prevent further environmental degradation. The focus is gradually shifting from addressing the environmental problems around the Sea itself, to improving land and water management further up the watershed. For the **Black Sea Basin**, the strategy is to help countries improve sea-water quality by reducing excessive nutrient runoff (from both agriculture, municipalities and industry) which has damaged fisheries resources and the tourism industry in the Black Sea. For **the Baltic**, the priority is to improve coastal ecosystems and waste-water treatment to improve water quality, while in the **Caspian** the riparians are only beginning to address issues of environmental degradation caused by the oil industry, nutrient run-off from watersheds, and poor fisheries management; there is, however, substantial scope for cooperation with the private sector.

Table 1 summarizes the proposed focus areas of future assistance program by sub-region. In Romania, Bulgaria and Moldova ECA has an extensive program because there is a congruence of "need, willingness and capacity," as well as institutions which operate with a reasonable degree of transparency. In Central Europe there is less need for Bank assistance (with greater access to concessional funds from the EU), in the "core" CIS countries there is less "willingness," and in Central Asia, less "capacity." Over time ECA should aim to increase assistance to Central Asia, Ukraine and Russia, although IDA borrowers face constraints on the overall level of loan-able funds.

Table 1: Priority Actions for Rural Development in the Region

Priority Actions	Central Europe, Baltics	Romania Bulgaria Moldova	Albania	Balkans	Turkey	Core CIS	Caucasus	Central Asia
Policy Reform		√			√	√		
Land Reform		√	√	√		√	√	√
Irrigation and drainage		√	√			√		√
Knowledge/info systems		√	√	√			√	√
Quality and safety	√	√						
Agricultural marketing		√		√	√			?
Rural finance		√	√				√	√
Roads, telecomms, & energy	√	√	√			√	√	√
Water supply & sanitation			√			√	√	√
Health								√
Education			√		√			√
Land Management		√	√		√	√	√	√
Water Management		√					√	√
Forests		√	√		√	√	√	√
Regional Seas		√						√
Natural Disasters	√	√			√		√	√
Financial Risks		√						

3. Sub-Sectoral (Thematic) Plans

Bank/IDA support in the 21st century has evolved to one which recognizes the need to be selective, to focus on support in areas which complements those of partners, where clients say they most want our assistance and where there are models that work. On this basis, we have selected five general themes which merit the emphasis of our work in rural areas.

A. Increasing Agricultural Productivity and Value Added

In most ECA countries, particularly those in the CIS, agriculture remains a key sector of the economy and interventions to increase inclusive growth will require improvements in factor productivity in the sector itself. ECA will provide support in many traditional areas for the Bank but have adapted approaches to accommodate best practice and changing global conditions. Areas for intervention include: supporting continued policy reforms, pursuing transfer of property rights through completion of land privatization and farm restructuring, creation of secure property rights and development of land markets, reversing the deterioration of irrigation and drainage systems and creation of community-based institutions to own and manage the systems, developing knowledge and information systems, and establishing quality and safety standards.

B. Off-Farm Enterprise Development

The Bank was historically involved in supplying agricultural credit. Support has shifted our focus to development of sustainable rural financial services, including savings, leasing and risk reduction instruments, as well as micro-credit for all rural enterprises, not only farms. Aside from finance,

however, the Bank has done little to develop a vibrant private economy off the farm. The non-existent or poorly functioning markets for input supply and output marketing and agro-processing industries represent a major bottleneck for future agricultural growth. Small and Medium enterprise (SME) development in these and other manufacturing and services to support rural livelihoods are a necessary complement to a growing agricultural sector which should shed labor as it becomes more productive. Because of the critical importance of this issue to clients, the strategy involves a heavy emphasis on searching for successful models and reaching out more actively to partners with expertise in this area (IFC, EBRD)². New approaches to off-farm employment creation in Poland are being tested and this experience is being monitored closely for possible replication elsewhere.

C. Social and Physical Infrastructure

ECA is supporting improved water supply and sanitation in a variety of countries, focusing on community-based approaches. Increasingly the aim is to support rural infrastructure projects which strengthen local government's implementation capacity and local democratic institutions. ECA does not have a clear strategy for either rural energy and telecommunications, or for rural road infrastructure. ECA supports lifeline energy tariffs where poverty and rising energy prices have led to increased use of biomass and land degradation, and to support increased internet connectivity. With regard to health and education, the strategy is to improve the quality of services while rationalizing existing systems to improve cost-effectiveness. There is also an emphasis on primary health and outpatient care, and on primary education and improved supporting infrastructure (e.g., teachers' housing, electrification of schools) with community participation. ECA will support creation of incentives for providers in rural areas and investments in basic equipment.

D. Land, Water and Forest Management, including landscape management and biodiversity conservation.

For **land management**, the strategy involves increasing support for new technologies such as minimum tillage and support for better nutrient management and more environmentally friendly farming methods. ECA will support replication of successful approaches in one country with appropriate adaptations to others, e.g., participatory natural resource management, where local communities work with local line ministry staff to select from and implement a menu of activities which improve soils and moisture retention and increase local incomes. ECA will also aim to replicate elsewhere successes with community-based range and forest management.

For **water management**, the focus will continue to be on improved irrigation and drainage management, and we will also support dam maintenance. In Central Asia, the priority will be on support for investments which improve local incomes and management of the Aral Sea watershed. ECA aims also to support improved wetland management and protection of fisheries' spawning grounds. The strategy will be to support improved river-basin planning to help clients prioritize and balance water requirements investments at a country level.

In **forest management** the strategy in the "forest-rich" countries is to improve public sector management, including fire and pest management, forest land-use planning, greater transparency in forest management, and support for sustainable approaches to forest land restitution, in order to increase the "value-added" to the economy and society from sustainably managed forests. In the "forest-poor" countries the focus will be on community range, forest and watershed management for poverty reduction

² International Finance Corporation, European Bank for Reconstruction and Development

and sustainable livelihoods. ECA will also help clients meet commitments to global environmental conventions regarding **biodiversity conservation** through supporting improved protected area management and landscape management in the production landscape.

E. Risk Mitigation

Improved security against man-made and natural disasters is one key means to improve human well-being. The strategy, regarding natural disasters, has three main elements: (i) helping our countries to recover and reconstruct quickly following natural disasters; (ii) helping them put in place disaster planning, preparedness and mitigation programs to reduce the impact of disasters when they do occur; and (iii) through regular lending, helping countries restructure elements of their economies to be less vulnerable to disaster (e.g., through more supplementary irrigation in drought-prone areas, dam rehabilitation, and supporting better pest and forest fire management systems).

ECA will also seek to introduce financial risk mitigation instruments (e.g., new-style insurance programs and hedging) as part of our rural financial services.

4. Implementation

A. Internal World Bank Implementation Issues and Plans

In order to implement the strategy ECA needs to work closely with other sectors, especially the Human Resources and Infrastructure Sector Units, but also Poverty Reduction and Economic Management, and Private and Financial Sector Development. Few projects outside ECSSD are aimed specifically at rural areas. ECA will seek to put a particular emphasis on making sure that rural issues are well treated in Country Assistance Strategies (CAS)s and Poverty Reduction Strategy Papers (PRSPs) in the future. This means ensuring that the appropriate level of intervention is supported for the importance of the sector and the degree of rural poverty.

B. Donor Coordination Issues and Plans

ECA is committed to working with other partners, recognizing the enormous strengths and assets they contribute to our efforts. This is not always easy and their priorities, procedures (especially procurement, but also many others) and time horizons can be quite different from those of the Bank/IDA. In the strategy, ECA explicitly recognizes that partnerships, even with IFC, are not cost-free or easy, and expectations are adjusted accordingly. The aim is to maximize synergies with our partners, carefully balancing the costs and benefits of these relationships for our clients. Partnership agreements reached at high levels often do not have adequate budget support at country level for effective implementation and expectations should be clear in light of fiscal realities.

C. Implementation Arrangements and Instruments

The key instrument is lending but the ability to use this instrument is limited for a number of reasons. For Central European countries, with increasing access to EU funds and to commercial capital markets, World Bank money is increasingly non-competitive. On the other hand, in the former CIS the Bank is reluctant to lend to the slow reformers, and there are debt and IDA lending constraints on the poorest countries. On some occasions, Bank procedures, particularly those regarding procurement, financial management and environmental safeguards, are regarded as cumbersome and expensive, and

decrease borrower interest, even if overall they increase cost-effectiveness, transparency and project design. The strategy is to continue to use lending instruments to the extent possible within these constraints, as experience shows that the development impact of lending is the most significant, but use of non-lending instruments will be expanded as a complement where there is demand from the client.

Lending: ECA will continue to focus on investment lending to support the program. Developing community-based approaches and creating institutional capacity works best in the form of investment operations. Experience has shown that a number of policy reforms can be supported through investments, and that there is more commitment from stakeholders when reforms are accompanied by investment. ECA will use sector adjustment operations sparingly, and only when there is a broad reform agenda and true ownership by the Borrower. The support would be for single tranche operations, set in the context of medium-term program. Overall, the aim would be to integrate broad sector policy issues into broader reform operations, where there is more leverage. This type of adjustment lending, however, needs to be complemented by investments to achieve lasting impact and to nurture the kind of local involvement, development of local institutions and capacity building that are critical.

In general the emphasis will be on project lending that combines investment with support for sub-sector policy reform. Examples of success with this approach include: land reform through support for farm restructuring; development of land markets through cadastre and land registration projects, improved rural financial policy through loans requiring market interest rates and elimination of subsidies, decentralization of water management and creation of water users' associations through irrigation projects; improved forest management policies through support for improved forest inventories, planning, financing and protection; and involvement of local communities and local governments through design and implementation of natural resources and local infrastructure improvement projects.

Non-Lending Services: ECA intends to continue to use IDFs to build institutional capacity as there is increasing recognition of the importance of institutions for successful implementation.

GEF has financed pilot investments in improved ecosystems conservation and management international waters. It has also often acted as a catalyst for Bank lending operations at a later date. Increasingly the aim is to work more closely with our clients to persuade them to see the benefits of borrowing both for *rural* public goods (social services, better land and water management, research and extension), while securing grant financing well as for *global* public goods through combined operations. The Prototype Carbon Fund, still in its pilot stage, is another potential instrument for supporting investments in global public goods.

There will be a high priority on doing country-specific economic and sector work (ESW) which is country focused and operational, learning from project experience. ESW should be completed expeditiously, carried out, to the extent possible, by the person who is responsible for lending in a particular country, and have local ownership, to improve effectiveness. There will also be increasing emphasis on providing "just-in-time" sub-sector notes that respond to specific issues raised by clients, and ECA will draw more on international experience to provide clients with options as they pursue reform.

Global distance Learning and the World Bank Institute also provide opportunities for sharing experience and knowledge across and between regions.

D. Measuring the Success of our Work

Individual investment operations generally include outcome indicators. Broader indicators, such as the decline in the number of rural poor or increase in off-farm employment in rural areas, can be

measured but are difficult to link to the assistance strategy. ECA will measure the success of our strategy implementation in the following ways:

- In the sub-regions summarized above, new lending and CAS objectives should reflect the priorities outlined in the strategy;
- The priorities and approaches followed in the new projects should reflect the sub-regional strategies
- New ESW should focus on the priority objectives of the strategy and should be operational; and
- Operations and sector work should meet or exceed quality review standards.

CHAPTER 1

OVERVIEW OF RURAL ECONOMIES AND SOCIETIES IN THE ECA REGION

1.1 Introduction

With the exception of Turkey, the countries of the ECA Region have undergone a transition over the last decade which has fundamentally altered the political, social and economic landscape of the region. All experienced dramatic declines in GDP following independence and transition from a planned economy. Each chose a different path toward democracy and market reforms and they have all experienced different levels of growth and recovery. As a region, output in 2000 stood at around 75 percent of 1990 levels, with a marked difference between the countries of central and southeastern Europe and the Baltics, when compared with the countries of the Commonwealth of Independent States.

Poverty rates and inequality have increased faster in ECA than in any other region of the world. In 1988, only one in twenty-five people lived in absolute poverty (less than US\$2.15 per day). A decade later, one in five people survived on that amount. Inequality, lower in ECA than almost anywhere else in the world before the transition, has increased steadily in all countries, and significantly in some, reaching rates comparable to the highest rates in other regions.

About 50 percent of the poor in ECA live in rural areas. While this is a lower share than in other regions, this average rate masks considerable differences across countries, and within countries, between rural and urban areas. In the majority of ECA countries, there are more poor in rural areas than in urban areas, and poverty rates are higher in rural areas in most countries. Thus, making a dent in poverty in the region will require a continued commitment to development in rural areas.

1.2 Economy

The Europe and Central Asia region has 415 million people (7 percent of the world's total), and 35 percent of these live in rural areas (compared with 54 percent worldwide). The region has 20 percent of the world's arable land and 24 percent of its forests, and is quite diverse, with countries differing widely in climate, natural resource base, income, and progress in economic and social reforms. Ten of the countries are preparing to join the European Union. Average incomes vary from nearly US\$10,000 (Slovenia) to US\$380 (Tajikistan and Moldova). The economies in the north and west are heavily industrialized, with agriculture contributing 10 percent or less to GDP, and rural populations comprising 25-40 percent of the total. Those further south and east are more rural, with agriculture contributing 30 percent or more of GDP in most Central Asian countries. Albania, Armenia, and Moldova have more than half the population living in rural areas.

All countries have struggled in transforming their economies to conform to the requirements of the market system. Inherited systems were generally inefficient, particularly with regard to energy, making costs of operation higher than they needed to be. In Soviet times, the rural service economy was

poorly developed; agricultural production, marketing and processing were closely integrated, and there was a focus on increasing output rather than on responding to consumer preferences. Challenges have included trying to reduce consumption and services levels to those compatible with current income, developing or introducing new, less expensive technologies (especially for power, heat, water supply, health care and roads) and stimulating the private sector to take over activities carried out by the public sector for decades.

The degree of success in creating growth, improving efficiency, and increasing living standards has varied widely across the Region. In Central Europe and the Baltics, 2000 GDP levels were about 6 percent above those of 1990, while in the CIS countries, 2000 GDP stood at only 63 percent of pre-transition levels, and in Moldova and Armenia, they were less than one-third the levels of the late 1980s despite reasonable progress with economic reform.

1.3 Social Issues

While the region is highly diverse, there are some common features. All countries in the region, with the exception of Turkey, experienced profound social changes over the 10 years following the break-up of the Soviet Union and the move toward a market economy. Although absolute poverty is lower in ECA than in other regions, the rapid increase in both poverty rates and inequality, even in the most successful economies, has significantly altered the social fabric of these countries. There has been migration of populations from rural areas to cities in some countries and the reverse in others, for example, in Romania, where agriculture has become a safety net.

There are a number of social issues that have emerged, or are emerging, in rural areas. Many of these have to do with the break-up of the former collective and state farms. For example, there are issues associated with the lack of equity in allocation of land rights, distribution of non-farm assets, and asymmetric power relationships in leasing arrangements between former collective farm managers and farm members. In many instances, collective farms have simply collapsed, leaving many un- or underemployed in areas where there are few employment alternatives. Most privatized farms have divested their social assets (such as, schools, clinics, and community centers) and municipalities have lacked the financial and institutional capacity to take them over. Many specialized farm workers, such as tractor operators or agronomists, on large farms, have suddenly had to become general farm owners/managers on very small farms and have found themselves without the relevant skills or knowledge.

Many rural populations had experienced a standard of living under socialism that was higher than would have been sustainable in a market economy and are now finding themselves forced to adjust to a lower level of consumption and infrastructure support more commensurate with their incomes.

Except in Central Asia, population growth is basically stagnant, rural literacy is quite high and basic infrastructure is reasonable, though deteriorating, throughout the region. Health indicators are still relatively good, although there have been sharp declines in male life expectancy, especially in Russia and Ukraine, and infectious diseases such as tuberculosis are re-emerging as health systems have deteriorated.

There has been civil unrest and war in several countries (Macedonia, Bosnia, Yugoslavia, Tajikistan, Azerbaijan, and the North Caucasus), and the resulting destruction has occurred predominantly outside of the capital cities. As former state institutions have collapsed, there has been a general deterioration in law and order across the region with an increase in protection rackets, bribery, and extortion. These security lapses have had an important effect on those in rural areas where people need to

transport goods long distances, as they become vulnerable to illegal interventions or disruptions from lack of security.

In spite of these numerous hardships, rural populations have gained greater power and influence over decisions that affect their lives. They have gained improved access to land and freedom in how to use it, as well as increased access to information and services.

1.4 Rural Policies and Rural Institutions

Progress with policy reform is highly varied across the region. The Central European countries, geographically and historically relatively close to Western Europe, have found it easier to reach consensus for economic reform than the countries further east, which are more distant from western markets. For the Central European countries, policy is now dominated by issues related to EU accession, including the need to meet quality and safety standards and to increase competitiveness to participate effectively in the common market. As the EU Common Agricultural Policy continues to evolve, there is no agreement as to the right agricultural policy framework for pre-accession countries during the transition. Tensions have emerged between policies aimed at economic efficiency and policies aimed at achieving social objectives in addition to economic objectives, as is the case for many EU agricultural policies.

For the Commonwealth of Independent States (CIS), a key policy reform issue remains property rights, especially in land, and the ability to engage in land transactions. In the Caucasus, and especially in Central Asia, water resource management is a principal focus. All countries struggle with the tradeoffs between efficiency, stability, and poverty reduction objectives in developing their policy agendas.

Prices and trade in most countries have been liberalized, industries and marketing agencies have mostly been privatized, and land privatization is well advanced most everywhere but Central Asia. State and collective farms have been largely restructured, although extremes in degree are most felt in this area. There has been less progress in building up the institutions, governance framework, and investment environment that will allow rural land, labor, and capital markets to develop. The “right” balance between public and private sector responsibilities is still emerging in most countries.

In some instances, reform has not brought the expected benefits, typically when reforms have been partial. Privatization of collective farms that provided all input procurement and marketing services, and of state-run marketing firms and agro-processing agencies, has led, in many instances, to their collapse without private substitutes emerging to fill the void. Lack of functioning capital markets and a poor business environment have prevented rapid entry of new enterprises. This has reinforced the need for comprehensive reforms, but also highlighted the need to recognize the pressures for second-best transitional arrangements in certain circumstances.

The region remains characterized by poor governance and weak institutions at the national level and even weaker institutions at the local level. In many countries, decentralization has not taken place and little authority has been devolved to local levels. In others, informal authority outside of the legal framework allows local officials to exert control over market decisions.

1.5 Agriculture and Natural Resource Base

There is wide divergence in the natural resource base and in agro-climatic conditions across the countries of the region. While the north and west have, in general, ample rainfall and plentiful forest

resources, soils are only of moderate quality and growing seasons are short. Livestock contributes 30-40 percent of GDP and forests and forest industries are major employers. The Central belt, stretching from Hungary through parts of Romania, Moldova, Ukraine, Southern Russia, and Northern Kazakhstan, has some of the most fertile soils in the world. Together with the Southern Cone of Latin America, this area has the potential, if land is sustainably managed, to significantly increase production of basic food crops and to help meet the doubling of world food demand projected over the next 25 years. In fact, the gap between actual production and potential production in these areas is one of the largest in the world.

The farming systems of Southeastern Europe, Turkey and the Caucasus are diverse but all are dependent on supplementary irrigation in the drier areas. Arable land is scarce in the mountainous regions, which are more dependent on livestock, but the sub-region can grow a wide variety of high value “niche” crops adapted to micro-climate and topography. The area’s coastlines, forests, and landscapes also have great tourism potential. In the arid and semi-arid Eastern Caucasus and Central Asia, farming is largely dependent on irrigation, so water and land resource management is the major issue. Deterioration of irrigation and drainage infrastructure, water-logging and salinity problems, and disputes regarding water use among the Aral Sea Basin riparian areas are major constraints to economic recovery.

Agriculture has become an important social safety net as industry has contracted and people have returned to the land in order to sustain a living. The share of agriculture in GDP has increased in many countries. Land has been privatized over most of the region, in some cases in small, fragmented plots, and administrative complexities with land titling have made it difficult for land to be used as collateral and for transparent land markets to develop. A special feature of Russia, Belarus, and Ukraine are garden plots of one hectare or less, cultivated by both rural and urban populations for subsistence but also for small-scale commercial production. These contribute the great majority of fruit, vegetable, potato, and milk production in these countries, however, they are dependent on cheap inputs from the large-scale former collective farms, which have mostly been privatized but still face soft budget constraints.

1.6 Rural Non-Farm Services

The quality of education and health services is generally poorer in rural areas than in urban. In most ECA countries, however, unlike in other regions, there is an oversupply of schools and hospitals in rural areas. Priorities are therefore on consolidation of supply, a re-orientation toward primary education and health care provision, and an upgrade of quality through financing of equipment and incentives for teachers and health care providers to stay in rural areas. Reforms to reduce costs, especially in health care, are required (for example, more use of radio technology for consultations). In some areas, especially Central Asia, uneven immunization coverage and nutritional deficiencies need to be addressed.

In general, rural infrastructure in ECA is better than in most regions, but it is deteriorating. The road infrastructure is considered adequate, though less good in mountainous areas. Road administrations tend to have a bias toward high technical standards rather than cost efficiency, and funding for road maintenance is grossly inadequate. Most transport services have been privatized but there are law-and-order problems with frequent bribes extracted along transport routes, greatly increasing the cost of rural goods. Basic telecommunications are still far less developed in rural areas than urban and the increased use of the Internet for information dissemination makes telecommunications an increasing priority for rural areas, especially in sparsely populated areas. Access to energy for heating is essential in ECA countries because the winters are long and cold but the true economic cost is high and not affordable for many rural residents, leading to tensions between social and economic objectives. Most rural households have access to electricity but not for heating. Many rural households have connections to the gas networks but do not receive service. In a number of countries, the increasing cost of fossil fuels has led to deforestation for fuelwood, with negative effects on the environment. Rural enterprises and rural

commercial services such as shops, banks, and tourist facilities, remain under-developed in most countries except for Turkey.

CHAPTER 2

SUB-REGIONAL STRATEGIES

Every country in ECA has special features. Nevertheless, in order to simplify the strategy, this report divides the region into seven “sub-regions” which share several common characteristics and have* generally similar priorities. The paper provides **sub-regional** strategies for the seven country groupings as well as for the regional seas:

- Central Europe and the Baltics (including Slovenia)
- Romania/Bulgaria/Moldova
- The Balkans (Albania, Croatia, Yugoslavia, , Bosnia, Macedonia)
- Turkey
- Russia, Belarus and Ukraine
- The Caucasus
- Central Asia
- The Regional Seas

2.1 Guiding Principles

The selection of sub-regions or countries of priority for the ECA rural development strategy has been guided by the following principles.

Client interest and demand will remain key drivers of the rural program. These are based on such factors as (i) willingness to work with the Bank/IDA, (ii) capacity and (iii) financial need. Other factors include: (i) the level of poverty (where there are the largest number of poor that can benefit); and (ii) economic potential (based on current development status, natural resource endowment and competitiveness).

In the ECA region, rural and urban poor are about equal in number and the overall program for the Region should be balanced. The overall numbers mask a wide diversity of conditions across countries, but in the great majority, the incidence of poverty is greater in rural areas than in urban. This strategy is aimed at identifying those priority countries where rural poverty is of particular importance, either in absolute numbers or in much higher incidence rates, and at developing approaches to addressing poverty reduction and sustainable increases in productivity relevant for those countries.

In countries where the majority of the poor are rural, the Bank should support significant programs in rural areas. These countries include Poland, Romania, Bulgaria, Kazakhstan, Uzbekistan, Macedonia, Bosnia, Albania, Azerbaijan, Moldova, Kyrgyz Republic, Tajikistan and Turkmenistan.

* Each sub-regional strategy places different emphasis on the five major themes of enhanced agricultural productivity, off-farm enterprise development, improved social and physical infrastructure, better land, water and forest management, and disaster mitigation. Chapter 3 discusses these thematic strategies in more detail.

In EU accession countries, other sources of financing are increasing but rural poverty remains quite high, especially in Poland, Romania, Bulgaria and Turkey. In these countries, we should continue significant support for rural development. The importance of agriculture to the Ukrainian economy justifies a substantial program, while the country with the greatest number of rural poor is Russia.

In reluctant reformers, such as Belarus, Uzbekistan, and Turkmenistan, the Bank should continue dialogue and support pilot projects as well as projects to help implement reforms and key infrastructure rehabilitation. In Armenia and Georgia, where poverty levels are high overall, the Bank should continue to support rural development as part of a balanced, broad-based growth strategy. Rural development is less of a priority in countries like Estonia, Croatia, Slovenia, Hungary, Czech Republic, and Slovakia, though in all of these countries, rural recreation and tourism will be important for growth and will require sustainable management of the rural landscape.

The following sections summarize the ECA rural strategy for each sub-region.

2.2 The Central European Countries

This sub-region includes Poland, Slovakia, Czech Republic, Hungary, the Baltics (Latvia, Lithuania and Estonia), and Slovenia (**Table 2a** and **2b**).

2.2.1 *Natural Resources*

The Central European countries are heavily forested, and forestry is important for the economy in all of the countries except Hungary. The growing season is short and soil fertility is only average (except again in parts of Hungary). Agriculture comprises only 5 to 10 percent of GDP. There are ample water resources although drainage is poor, and the sub-region is highly prone to flooding. The Baltic coastline, Tatros and Carpathian Mountains have considerable potential for tourism and recreation.

2.2.2 *Poverty and Social Indicators*

Poverty incidence in rural areas of the sub-region ranges from one and one-half to three times that in urban areas. The majority of poor live in the rural areas of Poland, Lithuania, and Hungary. Rural poverty is generally correlated with distance from western European markets and is worst in eastern Poland and the southern Baltics. Many of the rural poor are elderly and poorly educated. The poor housing market inhibits labor mobility, and the cold climate precludes development of informal housing alternatives.

Table 2a: Central Europe, the Baltics, and Slovenia (Social Economic Data)

	Hungary	Czech	Slovakia	Estonia	Slovenia	Poland	Latvia	Lithuania
Population (million)	10.1	10.3	5.4	1.4	2	38.7	2.4	3.7
Rural % of Total	36	25	43	31	50	35	31	32
Per Capita GDP (in 1998 US\$)	4,510	5,150	3,700	3,360	9,780	3,993	2,420	2,540
Total Poverty Rate % (\$4.30/day rule)	15	1	9	19	1	18	35	23
Poor in Rural Areas %	58	38	N/A	32	N/A	66	45	55
With Access to Piped Water								
• Rural %	90		40	64	95	39	45	78
• Urban %	95		81	89	100	83	83	83

Table 2b: Central Europe, the Baltics, and Slovenia (Land Use Data)

	Hungary	Czech	Slovak	Estonia	Slovenia	Poland	Latvia	Lithuania
Land area (millions of ha)	9.2	7.7	4.8	4.2	2	30.4	6.2	6.5
Land Use								
• Arable land %	52	40	31	26	11	46	30	45
• Permanent pasture %	12	12	17	7	25	13	10	8
• Other agricultural %	2.4	3.0	2.8	0.4	2.7	1.2	0.5	0.9
• Forest and woodland %	19	34	41	48	54	29	46	31
• Other land use %	14	11	8	18	8	11	14	15
Crop Land Under Irrigation %	4.2	0.7	11.8	0.3	0.7	0.7	1.1	0.3
Fertilizer Use, Kg/Ha	89	102	80	24	320	114	22	47
Agriculture as proportion of GDP (%)	6	4	4	6	4	5	5	10

2.2.3 *Basis for Rural Growth*

The macro-economic policies of these countries create a generally favorable environment for growth. Prospects for EU accession are driving reform and increasing the needs for adequate food/environment safety standards and for development of local institutions to access SAPARD, EU rural investment funds for pre-accession countries. EU accession will bring access to European markets, income transfers, and mobility, but also heavy competition. Land restitution has taken place, and there is full private ownership of land complete with titles and land registration. There are relatively active land markets in all of the countries except Poland. Financial markets exist and are beginning to expand to rural areas. Nonetheless, there is significant rural unemployment and underemployment and limited potential for expansion of primary agricultural production; prospects are more significant for processing of agricultural and timber products. There is contraction of the agricultural labor force in all countries except Poland. Rural tourism and recreation provide a good basis for off-farm rural growth (based on the numerous rivers and wetlands, the Baltic Sea, and the forests).

2.2.4 *Infrastructure/Service Endowmen*

Rural roads and transport are broadly adequate and rural areas are fairly well electrified. There is access to piped water and sanitation in rural areas, but it is much poorer than in urban areas, especially in Poland, Slovakia, Latvia, and Estonia. Rural telecommunications links are weak. Rural education levels are lower than in urban areas, as is the quality of education.

2.2.5 *Public Sector Management and Local Institutions*

Local institutions are already a building block for community based development. Decentralization is well underway and this will create a need for further strengthening of local government institutions. The legal/judicial framework and institutions are broadly functional and create an adequate basis for contracts and rural development. Social exclusion of certain groups, particularly of the Roma, is a problem in several countries.

2.2.6 *Risk Exposure*

There has been frequent flooding in Poland and Hungary, leading to loss of property and production.

2.2.7 *Priorities*

- Rural priorities for this sub-region include the following:
 - Stimulating **broad-based rural growth** primarily by focusing on public investments and services that will support increases in competitiveness. These include, for example, investing in rural infrastructure, including roads, electrification, water supply, sewerage, and telecommunications, as well as providing advisory services. Priority should be given to setting and enforcing standards for accessing international markets, for example, environmental and food safety standards, as well as forest certification. To finance rural infrastructure, these countries should focus on building local institutional capacity to tap the EU Rural Investment Funds, SAPARD.
 - Supporting **rural education** of all types to help younger people find jobs outside the farming sector as it downsizes. Secondary school curricula should emphasize general education and ensure that low-income children, including Roma, attend mainstream schools.
 - Improving **health care** by: (a) developing low cost communication technologies for linking rural areas with urban centers for health care; (b) establishing health outreach for Roma; and (c) providing better financial incentives for good quality doctors to go to rural areas.
 - Improving **land and water management** by: (a) introducing more effective flood management and protection; (b) supporting environmentally friendly farming, including improved livestock and manure management and control of run-off; and (c) establishing conservation management of environmentally sensitive areas for recreation.

2.3 **Romania, Bulgaria, and Moldova**

2.3.1 *Natural Resources*

These countries have a temperate climate, excellent soils (especially Romania and Moldova) and broad plains suitable for agriculture. Romania and Bulgaria are well forested and the mountainous terrain in those countries is good for tourism. Rainfall is generally adequate but droughts are frequent, especially in Moldova but also in Bulgaria, necessitating supplemental irrigation systems in some regions for sustainable production. Agriculture ranges from 16 to 30 percent of GDP but there is significant untapped agricultural potential, especially in Romania and Moldova. Water management in the Danube and the Black Sea is important to maintain the fisheries industry and for tourism. In Bulgaria, there are emerging issues on water resource management and allocation.

2.3.2 *Poverty and Social Indicators*

Poverty incidence in rural areas is much higher than in urban areas, especially in Romania where it is 2.4 times higher, and in Bulgaria where it is more than four times as high. In Romania and Moldova, 66 percent of poor live in rural areas; Romania has the second largest number of rural poor in ECA after Russia. Income inequality in rural Romania has increased markedly since land restitution was completed; landless workers have a higher poverty incidence in Moldova than those with land.

The health status of the rural poor is considerably worse than that of the urban poor. In the sub-region, 40 percent of the rural population has primary education or less, compared with 24 percent in urban areas, and 75 percent of farmers have less than 8 years of education. Absenteeism from schools has been increasing in rural areas in Moldova, especially for girls.

In Moldova, pension arrears are worse in rural areas than urban; conversely, in Romania, pensioners have benefited from land reform. Garden plots are an important survival mechanism especially in Moldova. The rural labor force expansion in Romania has served as a safety net, but there will eventually need to be a contraction if productivity is to grow.

Table 3a : Romania, Moldova, and Bulgaria (Social Economic Data)

	Romania	Moldova	Bulgaria
Population (millions)	22.5	4.3	8.2
Rural%	44	54	31
Per Capita GDP (in 1998 US\$)	1360	380	1220
Total Poverty Rate % (\$4.30/day rule)	45	85	12
Poor in Rural Areas %	66	66	57
Rural/Urban Poverty Ratio	2.4	1.4	4
With Access to Piped Water			
• Rural %	16	15	90
• Urban %	90	90	100
Enrollment in Secondary School (most data 1996) %	78	81	77

Table 3b: Romania, Moldova, and Bulgaria (Land Use Data)

	Romania	Moldova	Bulgaria
Land area (millions of ha)	23	3.3	11.1
Land Use			
• Arable land %	40	54	39
• Permanent pasture %	21	11	15
• Other agricultural %	2.2	11.7	2.0
• Forest and woodland %	29	11	30
• Other land use %	7	12	14
Crop Land Under Irrigation %	31.2	14.2	17.7
Fertilizer Use, Kg/Ha	34	68	44
Agriculture Contribution to GDP %	16	29	23

2.3.3 *Basis for Growth*

Macro-economic performance has been mixed, leading to uneven growth in rural areas. Prospects for EU accession in Romania and Bulgaria are driving reform, though with less immediacy than in Central Europe and the Baltics, increasing the need for adequate food/environment safety standards and for developing local institutions to access SAPARD (EU rural investment funds for pre-accession countries). Rural tourism, recreation, and coastlines offer prospects for rural growth. There is considerable potential to increase value added in agricultural production in Romania and Moldova, but growth remains constrained by small landholdings, plot fragmentation, and a lack of effective local institutions. All land is not yet titled and registered, and land markets have not yet begun to emerge. Supplementary irrigation is required to overcome frequent droughts and in some cases to increase yields, but this is hampered by land fragmentation. Rural financial services have not yet really developed. Moldova and Bulgaria were traditionally reliant on processed agricultural/forest exports, and these have not yet recovered from the breakup of the Eastern Bloc trade patterns. Forestry and timber processing is important in Bulgaria and Romania, but the forest land restitution program will need careful management to maintain the resource base.

2.3.4 *Infrastructure/Service Endowment*

The rural road network in Romania is poorly developed, with 80 percent of district roads officially considered in “poor” condition. Access to piped water in rural Romania and Moldova is far below that in urban areas (15 percent versus 90 percent). Rural access to sanitation services is also far below that in urban areas (less than 5 percent versus 80-90 percent). Government expenditure on education per rural child is 70 percent of expenditure per urban child in Romania.

2.3.5 *Public Sector Management and Local Institutions*

Poor governance constrains broad-based growth, especially in Moldova, where corruption in agro-processing facilities and extortion during transport particularly affect rural producers. Development of community institutions is progressing in Romania and Moldova, providing a base for development. The decentralization taking place in Romania will require additional support for local government institutions. In all three countries, the lack of an adequate legal/judicial framework continues to hinder rural growth.

2.3.6 *Risk Exposure*

The rural areas of all three countries are exposed to frequent natural and man made disasters: e.g., earthquake threats, floods, and mine tailing spills in Romania; droughts, ice storms, and hail in Moldova; and droughts and forest fires in Bulgaria. Financial instruments for sharing/reducing price/quantity risk, such as crop insurance, price insurance, hedging, futures markets, etc.) are not yet developed.

2.3.7 *Priorities*

In Romania and Bulgaria, there is a strong confluence of need, capacity, and willingness to work with the Bank, and support should cover the broad rural agenda. In Moldova, the need is higher, but the willingness to work with the Bank is currently limited and the program will necessarily have to be smaller and more phased. Nonetheless, priority areas for support in the three countries include the following.

- Stimulating **broad-based rural growth** through policy reform and key public investment services to increase productivity and efficiency. These include:
 - Continued policy reforms to further the price and trade reform undertaken in the last five years;
 - Completion and management of the land restitution/privatization process, including forest land, completion of land cadastre, titling and registration systems and encouragement of land markets;
 - Investing in rural infrastructure, including roads, electrification, water supply, sewerage and telecommunications;
 - Creating innovative financing mechanisms for rural enterprise development and farms and alleviating obstacles to commercial lending to the rural sector, such as developing warehouse receipts and the use of moveable property as collateral);
 - Improving irrigation management including institutional reform of irrigation authorities, decentralization of responsibilities to water users associations, and rehabilitation of irrigation infrastructure; and
 - Increasing competitiveness of farms, enterprises, and new forest owners through better advisory services both technical and financial.

- Supporting competitiveness through better grades and standards, including health, food safety, environment, and forest certification to better access export markets.
- Building local capacity to tap EU rural pre-accession funds (SAPARD).
- Supporting **rural social services** through: Consolidation, restructuring, and re-equipping education and health systems;
 - Financing school services, school heating and electrification for existing schools and teacher housing; and
 - Establishing outreach programs for Roma.
- Increasing **local participation in decision making** through:
 - Development of community driven micro projects;
 - Strengthening local governments, including responsiveness and outreach;
 - Supporting participatory approaches to protected area management; and
 - Creation of water users associations.
- Improving **land and water management** by:
 - Introducing more environmentally friendly farming methods to reduce erosion and runoff into the Black Sea;
 - Strengthening national park and protected area management to conserve eco-systems and develop tourism;
 - Conserving and restoring wetlands to improve water quality in the Black Sea and protect bio-diversity and fish resources; and
 - Supporting multi-purpose, sustainable forest land-use planning and management to increase the value of forests.
- Reducing **natural, man-made and financial risks** by:
 - Better planning for floods and earthquakes in Romania, droughts and ice storms in all three countries, and forest fires in Bulgaria and Moldova;
 - Improving safety of dams and holding ponds for mine tailings; and
 - Introducing financial instruments, such as crop insurance, hedging, futures, savings, and warehouse receipts.

2.4 The Balkans (Croatia, Bosnia, Yugoslavia, Albania, Macedonia)

2.4.1 *Natural Resources*

These countries have a varied and mountainous topography with outstanding natural beauty in their mountains and coastlines. They are heavily forested; in Bosnia, forests cover 56 percent of land area whereas arable land only covers 12 percent. The hot dry summers require supplementary irrigation for sustainable production. They have a long growing season but variable soils. Agriculture is a small share of the GDP in the former Yugoslav states although it is 50 percent for Albania. Cropped agriculture has limited potential, although livestock, including range management, can be competitive. In Yugoslavia, the largest of the Balkan countries, the natural resource base includes flat, fertile land in the Danube plain in the north, hilly, wooded land supporting mixed farming and livestock in the south, and mountainous, heavily forested terrain in the south-west and Montenegro.

2.4.2 Poverty and Social Indicators

Rural poverty incidence ranges from 1.5 to 2.6 times that in urban areas in the former Yugoslav states and is four times higher than urban areas in Albania. The majority of the poor live in the rural areas of Albania, Bosnia and Macedonia. Rural poverty is higher in mountainous areas in Albania and Yugoslavia. In Bosnia and Kosovo, rural poverty is also associated with the recent conflicts and loss of assets. Remittances are a hedge against poverty for many households and provide a cash injection into the rural economy.

Table 4a: Balkans

	Croatia	Bosnia	Macedonia	Yugoslavia	Albania
Population (millions)	4.5	3.9	2	10.6	3.4
Rural%	43	57	38	48	59
Per Capita GDP (in 1998 US\$)	4260	1251	1290	N/A	811
Total Poverty Rate % (\$4.30/day rule)	4	N/A	44	N/A	59
Poor in Rural Areas %	35	N/A	69	N/A	80
With Access to Piped Water					
• Rural %	40				19
• Urban %	75				40

Table 4b: Balkans

	Croatia	Bosnia	Macedonia	Yugoslavia	Albania
Land area (millions of ha)	5.6	5.1	2.5	10.2	2.7
Land Use					
• Arable land %	26	10	23	36	21
• Permanent pasture %	28	24	26	21	16
• Other agricultural %	2.3	2.9	1.9	3.4	4.5
• Forest and woodland %	37	53	40	17	38
• Other land use %	7	11	9	22	21
Crop Land Under Irrigation %	0.2	0.3	8.4	1.6	48.4
Fertilizer Use, Kg/Ha	178	18	77	63	9
Agriculture Contribution to GDP %	9	16	11	22	54

2.4.3 Basis for Growth

The conflict and post-conflict situation in all of these countries has had a negative effect on economic growth, and the instability of the region has taken its toll on the rural sector. Nevertheless, land has been restituted and is, for the most part, privately held, and titling and registration are beginning or continuing in all countries*. Forests and forest industries are important in Croatia and Bosnia while community forestry and range management are important for rural development in Albania. Croatia, Bosnia and Macedonia have significant potential for rural tourism. The proximity of the sub-region to Western Europe holds potential for export development, but links need strengthening. Rural financial services are poorly developed, although micro-credit continues to do well in Albania and Bosnia.

* However, substantial tracts of fertile land are still managed by Agro-combinats.

2.4.4 Infrastructure/Service Endowment

Rural access to water supply and sanitation is far worse than urban access. The rural road network in Albania is extremely poor, with bad road surfaces, and government funding covers only 5 percent of the annual maintenance requirement. In the other countries, rural roads are generally adequate. In Albania, 70 percent of the rural poor are not covered by health insurance. Albanian school enrollment rates are significantly lower in rural than in urban areas, and the quality of the school infrastructure is poorer; rural schools have fewer teaching materials and less equipment, and teachers have fewer qualifications. Villages with no access to a road have difficulty attracting teachers. Infrastructure in the former Yugoslav countries is adequate though deteriorating. There are rural energy shortages in Albania, which have led to illegal harvesting for fuelwood.

2.4.5 Public Sector Management and Local Institutions

Weakness of government and poor governance in Albania and Bosnia have resulted in widespread development of non-governmental institutions. Community-based institutions in Albania have proven to be a successful engine for rural development, for example, in micro-credit, irrigation, forest and range management, and rural infrastructure, and a well-developed NGO community successfully manages microcredit in Bosnia. Decentralization processes have begun in most countries. Yugoslavia, after 10 years of isolation and political repression that ended only in late 2000, is still at an early stage of institutional reform. Reform of institutions key to sustainable rural growth, including irrigation, forestry, livestock and agricultural support services institutions are ongoing, though slowly.

2.4.6 Risk Exposure

Bosnia and Macedonia are vulnerable to earthquakes and there is still threat of further hostilities. The current unsettled political situation constrains investment and contributes to insecurity. Floods are a threat, especially in Croatia and Albania, where they are also associated with landslides and soil erosion.

2.4.7 Priorities

The Bank priorities for this sub-region are distinguished between the former Yugoslav Republics and Albania.

2.4.7.1 Croatia, Bosnia, and Macedonia

Because of the diversity in their recent history, a distinction should be made between Albania and the countries that were once part of the Federal Republic of Yugoslavia. The goals in Bosnia, Macedonia, Croatia and, eventually, Yugoslavia, are to assist with economic recovery and recovery of trade, to support completion of farm privatization, and to capitalize on the outstanding natural beauty of these countries for rural tourism development. The rural program in these countries does not necessarily need to be large.

The focus of support should be:

- Restoration of trade links with European markets.
- Facilitating a return to commercial agriculture from current subsistence practices by completing farm privatization, developing land markets and functioning rural financial services, as well as repairing damaged irrigation structures;

- Rural landscape conservation along the coastline and in the mountains and improved forest management to spread tourism and economic development to rural areas, especially in Croatia, Montenegro and Macedonia;
- Restoration of forest institutions to manage and protect the forests and to recover the resource base for timber industry; and

2.4.7.2 Albania

Albania is a very poor country with a large rural population, strong local social cohesion, and a large number of very poor rural people. Here there is also a strong confluence of need, capacity, and willingness to work with the Bank. The portfolio in Albania is already large but can be easily scaled-up further for increased impact. The program has emphasized community-based rural development approaches, including micro-credit, participatory irrigation systems, community-based forest and range management, advisory services, land titling, fisheries development, protected areas and watershed management, and investment in social and physical infrastructure. Unlike in most other sub-regions of ECA, in Albania, there is a need to increase the supply of educational facilities and to extend health outreach.

The focus in Albania should be on developing community-based approaches across the entire rural economy including:

- Microcredit for small enterprise development and farming;
- Participatory irrigation;
- Forest management, including community forest and range management;
- Advisory services and land titling;
- Fisheries development;
- Protected area and watershed management;
- Community rural infrastructure, including rural water supply;
- Rural roads;
- Improved primary health care outreach through provision of information and visits; and
- Improved and better access to rural primary education.

2.5 Turkey

2.5.1 Natural Resources

Turkey's topography and climate are highly diverse. Precipitation is generally below 600 mm except along the Northern Black Sea. Winters are cold and summers are hot in Anatolya, but the climate is much milder along the coastlines. Agriculture comprises 15 percent of GDP. The growing season is long along the coasts, and the land is adapted to a wide range of crops, but soils are variable and production requires supplementary irrigation for high value crops. Water resources are substantial but require careful management. Many watersheds are degraded, requiring rehabilitation to restore fertility. Forests cover 20 percent of land area and have high ecological and watershed protection values. The coastal and mountain landscapes are beautiful and have considerable tourism value, and Turkey has the richest biodiversity of any of the ECA countries.

2.5.2 *Poverty and Social Indicators*

There are wide regional income disparities across the country. Incomes in the largely rural east, southeast, and northeast/Black Sea Region are 40 percent of the national average. Turkey is the only country in the region where rural poverty has declined over the last 10 years, although infant mortality remains relatively high in rural areas. There has been rapid rural/urban migration, leading to an absolute decline in the rural population despite overall population growth. Increasing education levels have been credited with successfully reducing the rate of population growth. The population in the east and southeast has been displaced by civil disturbances. Traditional culture practiced in rural areas continues to lead to some gender bias. Although absolute poverty levels are relatively low, it is estimated that because of the recent economic crises, about 30 percent of the population is at risk of not being able to purchase a minimum consumption basket of goods.

Table 5a: Turkey

Population (millions)		64.3
Rural%		26
Per Capita GDP (in 1998 US\$)		3160
Total Poverty Rate % (\$4.30/day rule)		N/A
Poor (\$2.15/day rule)		N/A
With Access to Piped Water		
•	Rural %	65
•	Urban %	73

Footnote: 7.3 percent of the population cannot buy the locally defined minimum food basket and 36 percent cannot buy the basic needs basket including non-food items.

Table 5b: Turkey

Land area (millions of ha)		77
Land Use		
•	Arable land %	32
•	Permanent pasture %	16
•	Other agricultural %	3.3
•	Forest and woodland %	26
•	Other land use %	23
Crop Land Under Irrigation %		14.4
Fertilizer Use, Kg/Ha		69
Agriculture Contribution to GDP %		15

2.5.3 *Basis for Growth*

There has been recent progress in macro-economic reforms, but instability and high inflation remain problems for agricultural and rural growth. Unlike most other countries of the region, there is a very dynamic private sector which is an engine of growth, and the rural service sector is well developed. Most farm-land is privately owned but in small, fragmented plots, many of which are not yet titled or registered, and pasture and forest-land are owned by the state. Rural financial markets remain weak but are improving. EU accession prospects are facilitating trade growth but are not yet the driving force for reforms or investments in rural areas that they are in other accession countries. Public expenditure patterns and policy distortions suppressed agricultural growth through the 1990s, but recent reforms should stimulate increased productivity. Agriculture is highly diverse and the horticultural sector has performed well; however, there is still unmet potential in high value crops and processing and considerable potential for rural tourism. Tourism, very largely in coastal areas, already accounts for 13

percent of foreign exchange earnings. Coastlines, however, are vulnerable to erosion and their development has often been poorly planned.

2.5.4 Infrastructure/Service Endowment

Rural roads are generally adequate but there is wide regional variation, e.g., they are in especially poor condition in the Black Sea provinces. Considerable progress has been made in access to water supply and sanitation services, but coverage is worse in rural areas than in urban. Maternal and infant mortality are substantially higher in the east than the west. Education enrollment in secondary schools is significantly lower in rural areas than in urban.

2.5.5 Public Sector Management and Local Institutions

Government institutions remain centralized, and their inflexibility makes it difficult for them to accommodate Turkey's wide diversity. Government institutions lack transparency; and local NGOs remain generally weak and poorly funded, although there are some exceptions. Some progress has been made with privatization of farm services. Decentralized, community-driven development faces constraints because of overriding concerns for political stability, although there are successes in watershed management and water user associations.

2.5.6 Risk Exposure

In the entire ECA region, Turkey is one of the countries most vulnerable to earthquakes. The climate is also variable and rain-fed agriculture is quite vulnerable to drought. In addition, the country faces high risks from landslides and floods, exacerbated by erosion from poor land management. There has been some progress with risk insurance and earthquake planning but more is needed.

2.5.7 Priorities

The size of the rural program should be contingent on progress in reform and implementation and focus on the following areas.

- Supporting policy reform and competitiveness of the rural and agricultural sectors through:
 - Direct income support rather than farm subsidiary, privatization of state enterprises and reform of cooperative; and
 - Improved environmental and safety standards to increase exports.
- Supporting social effects of reforms and social services through:
 - Provision of financial support to farmers to mitigate the phase-out of agricultural subsidies;
 - Significant investments in, and continued expansion of, rural education, with a focus on girls' education and secondary education;
 - Focus on preventive health services including maternal and child care and low cost health delivery systems to rural areas;
 - Incentives for rural health clinics to be adequately staffed and equipped; and
 - Improvement of rural infrastructure.

- Managing natural resources through:
 - Improved watershed management, irrigation, and forest management;
 - Multipurpose forest management to conserve the land base for rural tourism; and
 - Protected area management for bio-diversity conservation and rural tourism.
- Risk mitigation through:
 - Disaster forecasting, management, and mitigation, including floods, earthquakes, and landslides; and
 - Financial risk management and mitigation development of insurance markets.

2.6 Russia, Belarus and Ukraine

2.6.1 *Natural Resources*

The climate in Russia, Belarus, and Ukraine varies from arctic to temperate and from moderately humid to semi-arid. There are short growing seasons and poor soils in the north and excellent black soils in Ukraine and the south of Russia, where there is considerable potential for productivity increases with supplementary irrigation. All three countries are covered by vast forest resources, which are important for their economies and for the global climate. Russia accounts for 22 percent of the world's forests and forest resources are also abundant in Belarus and northern Ukraine. There are extensive wetlands in Siberia, Belarus, and along the Black Sea.

2.6.2 *Poverty and Social Indicators*

Rural poverty incidence is similar to urban, although Russia has a higher number of poor in rural areas (24 million) than any other country, due to the size of the country. While these countries have more urban than rural poor, due to their large rural populations, ECA cannot make a dent in the regional rural poverty rates without addressing rural poverty in these countries. In all three countries, garden plots provide a key hedge against absolute poverty, accounting for 50 percent of agricultural output and providing 40-50 percent of rural household income. In Belarus, many of the rural poor include infirm pensioners, low paid agricultural workers, and single persons with dependents, and farm wages are only 58 percent of the national average.

Table 6a: Core CIS

		Russia	Belarus	Ukraine
Population (millions)		147	10.2	49.9
Rural%		23	29	32
Per Capita GDP (in 1998 US\$)		2069	2427	1423
Poor (\$4.30/day rule) %		31	10	29
Poor in Rural Areas %		41	43	30
With Access to Piped Water				
	• Rural %	75	33	45
	• Urban %	90	90	90

Table 6b: Core CIS

	Russia	Belarus	Ukraine
Land area (millions of ha)	1690	20.7	57.9
Land Use			
• Arable land %	7	30	57
• Permanent pasture %	5	14	13
• Other agricultural %	0.1	0.6	1.7
• Forest and woodland %	45	35	16
• Other land use %	42	20	12
Crop Land Under Irrigation %	3.9	1.8	7.2
Fertilizer Use, Kg/Ha	13	119	27
Agriculture Contribution to GDP %	7	13	14

2.6.3 *Basis for Growth*

In Ukraine and Russia, moderate progress on macro reforms and stop/start uneven and half-hearted sector reforms have left the economies of rural areas somewhere in between planned and market ones. In Belarus, complete lack of reform allowed for sustained production over a long period but deterioration of agriculture has set in, even in the private sector. Southern Belarus also has fertile land, but agricultural practices need careful management to mitigate the effects of Chernobyl. Although growing seasons are short overall, Ukraine and Southern Russia have some of the best soils in the world. Their fertility, however, is threatened by outmoded farming practices, and the gap between actual and potential production is enormous. These countries, along with those in the Southern Cone of Latin America are uniquely placed to help meet the large expansion of world food demand projected for the first quarter of the 21st century. Agricultural productivity for main field crops could double in Ukraine and southern Russia, but it is constrained by the poor policy environment and poor governance. Incomplete farm restructuring, lack of private land ownership or ownership of physical plots, poorly functioning land markets, and unresolved problems of farm debt impede productivity growth and development of capital markets. There are also inter-regional trade restrictions in some parts of Russia. Deteriorated irrigation/drainage infrastructure in Ukraine and Southern Russia constrains soil fertility and yields, while soil compaction and poor farm practices also limit productivity. Private sector investment in timber and agro-processing (including livestock) is key to the recovery of growth in rural areas but has been constrained by the poor business environment. There is some tourism potential along Black Sea and in sparsely populated wild areas.

2.6.4 *Infrastructure/Service Endowment*

In Russia, 75 percent of the rural population has access to piped water (compared to 90 percent in urban areas). In Ukraine, however, only 45 percent of the rural population versus 90 percent of the urban population have access to piped water. In Belarus, only 25 percent of rural households have a bath or shower compared to 80 percent for urban households and only 33 percent of rural households have running water, compared to 90 percent for urban households. The rural road network is broadly adequate. Dismantling and financial collapse of state/collective farms have led to divestiture of social assets, such as heat, health, and kindergartens, and lack of funding by municipalities has caused deterioration in quality of services. There is an oversupply of facilities for education and health.

2.6.5 *Public Sector Management and Local Institutions*

There are widespread governance issues in resource management and trade. In Russia and Ukraine, national governments are more reform-minded than local ones, and the decentralization movement creates concern about governance issues. In agriculture, local officials have intervened in distribution of inputs and credit as well as in output collection and trade to maintain power; discouraging investment and growth. There are complex and informal interactions between local governments, collective farm management, and workers, which create distortions that are not transparent or market oriented but may have social benefits. There has been little progress in community-driven development in agriculture, but small grants for biodiversity initiatives have been helped to generate community groups. There is an active NGO movement at the local level, but it is still primarily focused on protest rather than on partnership or advocacy for change.

2.6.6 *Risk Exposure*

Forest fires and pest outbreaks (especially locusts) and periodic drought in some regions threaten forests and agricultural output. Aging and poorly maintained dams threaten downstream populations and property. Risk insurance and financial instruments are poorly developed.

2.6.7 *Priorities and Strategy*

While these countries have more urban than rural poor, ECA cannot make a dent in overall regional poverty rates without addressing the problems in rural Russia and Ukraine, due to the numbers of rural poor. The Bank priorities in these countries are to:

- Maintain the policy dialogue to encourage understanding of market-based principles and their application in these countries;
- Support implementation of policy reform with tangible operations that improve the working environment in rural areas such as:
 - Investments in farm restructuring, land privatization and titling, as well as title registration in Ukraine and in Russia and Belarus when they are ready;
 - Introduction of public expenditure management and leasing arrangements for forests and reform forest taxation, valuation, and certification;
 - Reform and development of financial institutions serving the rural sector (Ukraine), building on land market and financial sector reforms; and
 - Guarantee the maintenance of private sector friendly policies in certain sub-sectors.
- Engage in regionally-focused pilot operations which demonstrate improved technologies or approaches, for example:
 - Rehabilitation of irrigation schemes based on local management in Southern Russia and Southern Ukraine;
 - Provision of information and advisory services aimed at new, private farms and rural business enterprises and at supporting safe agricultural practices in areas affected by Chernobyl;
 - Improved forest land use planning and protection;
 - Introduction of more sustainable farming, as well as soil, wetland, and water management; and
 - Improved dam safety.

- Downsize or consolidate health care facilities and upgrade health provision in rural areas, with an increasing focus on outpatient care.

2.7 Georgia, Armenia and Azerbaijan

2.7.1 *Natural Resources*

Rainfall in these countries is over 2000 mm along the Black Sea coast but only 300-600 mm or less elsewhere and falls to 150 mms in the driest parts of Azerbaijan. It is unreliable in Armenia, Azerbaijan, and eastern Georgia where soils are the most fertile, so irrigation is essential for crop production. There are emerging difficulties in water resource management especially in Azerbaijan and Armenia, with trade-offs between water use for irrigation, energy, and ecological uses. Arable land is less than 20 percent of land area, but the climate permits long growing seasons and production of subtropical products. Forests comprise less than 12 percent of land area except in Georgia whose 43 percent is a key resource. Georgia has beautiful landscapes with considerable tourism potential, and the Southern Caucasus constitute a unique ecosystem and a spectacular tourist asset for all three countries.

2.7.2 *Poverty and Social Indicators*

Poverty incidence is similar in rural areas and urban areas in Armenia and Georgia but higher in Azerbaijan. The decline in income of the rural population has been cushioned by equitable access to land while urban industry has collapsed. In Armenia and Georgia, the rural and urban poor are about equal in number; in Azerbaijan, 70 percent of the poor are rural. In rural Armenia, only 52 percent of children from poor households and 67 percent from non-poor households attend school regularly. Phasing in full-cost energy pricing has had important income and environmental effects, leading families to use dung and fuelwood for heating, thus lowering soil fertility and causing deforestation. Civil conflict and large refugee populations have increased poverty in all three countries.

Table 7a: Caucasus

	Armenia	Georgia	Azerbaijan
Population (millions)	3.8	5.5	8
Rural%	30	40	43
Per Capita GDP (in 1998 US\$)	460	970	480
Poor (\$4.30/day rule) %	86	54	64
Poor in Rural Areas %	40	48	80
Rural/Urban Poverty Ratio	1	1.1	1.9
With Access to Piped Water			
• Rural %			
• Urban %			

(*The access to water figures in the above table need be put in, please.*)

Table 7b: Caucasus

	Armenia	Georgia	Azerbaijan
Land area (millions of ha)	2.8	7	8.7
Land Use			
• Arable land %	18	11	19
• Permanent pasture %	30	28	29
• Other agricultural %	2.3	4.1	3.0
• Forest and woodland %	15	43	11
• Other land use %	36	14	38
Crop Land Under Irrigation %	51.9	44.1	75.2
Fertilizer Use, Kg/Ha	16	47	14
Agriculture Contribution to GDP %	33	26	20

2.7.3 *Basis for Growth*

There has been reasonable progress on macro-economic policy reform but the investment climate is poor. Land reform is virtually complete, with full private ownership and transferability, titling, and registration underway. Land markets are beginning to emerge but are not yet active. Small and fragmented plots hamper efficient production and farmers get few economies of scale in marketing and input acquisition. There is tourism potential in Georgia because of its mountain/coastal landscapes. Rehabilitation of irrigation and drainage systems is needed while transfer of O&M responsibilities to users is key to growth and a shift from high lift to gravity irrigation is needed. There are nascent rural financial services in Armenia and Georgia. Poor agricultural practices are leading to reductions in soil fertility but there is potential for application of new technology to increase productivity, especially in Georgia. Illegal logging in Georgia is reducing the potential of forests.

2.7.4 *Infrastructure/Service Endowment*

In Georgia, 10 percent of rural families have hot water versus 80 percent for urban families. In Armenia, lack of heating, electricity and water in schools reduce attendance in rural areas, while introduction of fees for health care has reduced access by rural people. According to a recent survey, 61 percent of poor and 41 percent of non-poor who sought medical service were turned away. In all three countries, there is an over-supply of teachers, doctors, schools, and hospitals. In Azerbaijan, rural households cite lack of gas and electricity as their first concern, and in all countries increased prices for clean energy, like oil, gas, and electricity, have led to increased use of “dirty” fuels for heat, such as coal and fuelwood, with negative external impacts on health, deforestation, and land degradation.

2.7.5 *Public Sector Management and Local Institutions*

There are serious governance issues in all three countries. Very low local government and civil service salaries severely reduce the effectiveness of local public institutions while legal and judicial institutions remain weak. Nevertheless all countries have active civil society movements and civil liberties are, for the most part, respected.

2.7.6 *Risk Exposure*

Earthquakes are a serious threat, especially in Armenia. Poor dam safety is a concern and droughts are frequent. Financial instruments for sharing/reducing price/quantity risk are not yet developed. Civil strife remains a threat and impedes investment and trade between the countries.

2.7.7 *Priorities and Strategy*

We have been engaged in a broad set of interventions in these countries. Over the medium term, Bank priorities have narrowed down to a few key priorities. These include:

- Improving **water and land managements and risk mitigation** through:
 - Improved techniques and community based approaches for soil and water conservation and watershed protection;
 - Disaster planning and mitigation, including dam safety, earthquakes, droughts, and floods;
 - Irrigation and drainage rehabilitation, focusing both on system rehabilitation and community-based irrigation management;
 - Development of transparent, sustainable, multipurpose forest management systems; and
 - Support to ecosystem conservation and landscape management in both mountain and coastal areas.

- Stimulating rural enterprise development through:
 - A scaling up of sustainable micro-credit systems and agribusiness support; and
 - Expansion of advisory services for new private farmers and small rural businesses, while completing land registration and titling services.

- Supporting **rural social services and infrastructure** by:
 - Consolidating health staff and infrastructure to provide at least a minimum level of health services at prices affordable to rural households;
 - Improving efficiency in the education sector by reducing the number of teachers and schools, by supporting severance payments to teachers, doctors, and nurses, and by shifting the focus to improving the quality of teachers, curriculum and facilities; and
 - Improving basic infrastructure provision of heating, water and electricity to meet minimum standards at the lowest possible cost.

The Bank has and will continue to promote community-based approaches to provision of infrastructure, to irrigation, to forest and watershed management, and to credit and enterprise development.

2.8 Central Asia: Uzbekistan, Turkmenistan, Kazakhstan, Tajikistan and Kyrgyz Republic

2.8.1 *Natural Resources*

The climate varies from temperate to extreme, and is mostly arid and semi arid, requiring irrigation for most agriculture. There are forests and vast steppes in the north suitable only for extensive range and limited arable farming. The high mountains in the south provide an opportunity for water storage and include unique ecosystems, but the region overall is water scarce with over 90 percent of water resources used for irrigation. The Aral Sea river basin provides most water resources; and downstream riparians, such as Kazakhstan, Uzbekistan, and Turkmenistan are dependent on releases by Tajikistan and the Kyrgyz Republic for economic survival. There are difficult trade-offs between summer releases of water from upstream dams for irrigation, and winter releases for local energy generation. The

overuse of water for irrigation has reduced the area of Aral Sea by two-thirds, dramatically damaged fisheries and ecosystems, and has led to drainage and salinity problems. Improving water resource management is the key natural resource management challenge for this sub-region.

2.8.2 Poverty and Social Indicators

Seventy five to eighty percent of the region's poor live in rural areas while in Kazakhstan, this figure is roughly 60 percent. Rural poverty incidence is higher in rural areas than urban, and up to four times higher in Kyrgyz Republic. Poverty is differentiated by region within countries (it is higher in irrigation-dependent southern Kazakhstan than in the north, and higher the mountains of the Kyrgyz Republic and Tajikistan than in the low lands), and by ethnic group. In Uzbekistan there is higher poverty in the Amu Darya delta area than in the north, as the population there is at the “tail-end” of the irrigation system, and as land reform begins, there are also increasing numbers of landless dependent on casual labor for income. There are severe inequalities in landholdings in Kazakhstan as rural elites have managed to acquire land shares from farm workers on highly favorable terms through poorly implemented land reform, and this exacerbates inequality and social alienation. Garden plots are key to survival and a hedge against desperate poverty, but some ex-sovkhoz (state farm) workers do not have even these. Civil strife has increased poverty in Tajikistan. Regarding health status, there is significant incidence of goiter from iodine deficiency in rural areas in the Kyrgyz Republic and Tajikistan, and immunization is sporadic and over-estimated. In Kazakhstan, infant and child mortality is significantly higher in rural areas than urban with higher stunting and wasting. Poor quality of drinking water and blowing, salt-laden air, contribute to gastro-intestinal and respiratory illnesses in the delta areas around the Aral Sea.

Table 8a: Central Asia

	Kazakhstan	Kyrgyz	Tajikistan	Turkmenistan	Uzbekistan
Population (millions)	15.4	4.7	6.2	4.8	24.6
Rural%	0.44	0.66	0.73	0.55	0.63
Per Capita GNP (in 1998)	1340	380	370	640	950
Poor (\$4.30/day rule) %	31	84	96	34	N/A
Poor (\$2.15/day rule) %	6	49	68	7	N/A
Poor in Rural Areas	55	80	76	80	N/A
With Access to Piped Water					
• Rural %	30	N/A*	32	5	45
• Urban %	90	75	85	80	73

Table 8b: Central Asia

	Kazakhstan	Kyrgyz	Tajikistan	Turkmenistan	Uzbekistan
Land area (millions of ha)	267	19.2	14.1	47	41.4
Land Use					
• Arable land %	11	7	5	3	11
• Permanent pasture %	68	48	25	65	55
• Other agricultural %	0.1	0.4	0.9	0.1	0.9
• Forest and woodland %	4	4	4	9	3
• Other land use %	17	41	65	23	30
Crop Land Under Irrigation %	7.1	75.4	80.9	87.8	88.3
Fertilizer Use, Kg/Ha	4	23	83	88	123
Agriculture Contribution to GDP %	10	46	27	35	31

* Half of rural villages have operating water supply systems but supply is intermittent and deteriorating.

2.8.3 *Basis for Growth*

Despite progress on macro-economic “stroke of the pen” reforms, the investment climate in Kyrgyz Republic and Tajikistan is poor and these countries suffer from difficulties with access to markets. The investment climate is much better in Kazakhstan, which has the benefit of a greater natural resource base and recent successes in oil exploration. Uzbekistan and, especially, Turkmenistan are slow reformers regarding both economic and political liberalization, but they have managed to avoid significant declines in output. There is no private ownership of land in Central Asia but long-term transferable leases in the Kyrgyz Republic and Kazakhstan are reasonable substitutes. Tajikistan is also making progress in this area. The Kyrgyz Republic has very small, subsistence land holdings; Kazakhstan has avoided fragmentation but at the expense of inequitable acquisition of leases by a powerful rural elite. Although analysis suggests that the great majority of irrigation schemes in the basin are economically viable, there has been a dramatic deterioration in irrigation and drainage infrastructure, leading to sharp falls in productivity, poor water management and with excessive water applications, have contributed to water-logging and salinity in many areas. Continued sector policy distortions and poor public sector management reduce farm revenues and input use especially in Uzbekistan, and lead to significant soil mining and reduced fertility. There is agricultural potential with improved technology and improved policy reduction in trade restrictions and movement of people between countries is also a high priority for sustained recovery of growth.

2.8.4 *Infrastructure/Service Endowment*

Access to piped water is about half in rural areas what it is in urban areas; access to sanitation in rural areas is less than one-fifth that of urban areas. The education system too highly specialized and does not meet the needs of modern economy. Basic road infrastructure is adequate, but there are increasing difficulties with maintenance especially of local road networks. For both health and education, there is an oversupply of facilities and professionals, but the quality remains poor, and costs are high.

2.8.5 *Public Sector Management and Local Institutions*

Poor governance is a serious impediment to trade and investment and bribes extorted along transport routes disproportionately affect rural producers, increasing costs. Very low public sector salaries inhibit the effectiveness of the local civil service and contribute to poor governance. Poorly conceived public investment programs in Uzbekistan and particularly in Turkmenistan are lowering potential for sustainable growth. Local social cohesion is somewhat limited, impeding community driven initiatives. NGOs and civil society are developing in Kyrgyz Republic and Kazakhstan, and there are well-developed local networks in Tajikistan, but civil liberties are less developed than in other parts of the region. The proximity to Afghanistan, the recent war, and the risk of destabilization being “exported” to Central Asia make this a particularly difficult and sensitive issue. Border restrictions imposed partly for security reasons are a further very serious impediment to trade and growth, especially for The Kyrgyz Republic and Tajikistan.

2.8.6 *Risk Exposure*

Dam safety is poor. Landslides, floods, droughts, locusts are all threats to property and livelihoods. Financial instruments for sharing/reducing price/quantity risk not yet developed. Risks from civil disturbances remain.

2.8.7 *Priorities and Strategy*

The great majority of the poor live in rural areas. The region should support programs aimed at broad-based growth, particularly in three priority areas: water and land management, privatization and post-privatization assistance, and rural infrastructure and services. Key areas for intervention include:

- Water and Land Management covering:
 - Irrigation and drainage rehabilitation with a focus on improving cost-effectiveness and better management of water resources;
 - In rain-fed areas, better soil and moisture conservation, range management and introduction of new technologies for crop production, and watershed and pasture management in mountainous areas; and
 - Disaster prevention and mitigation, including flood protection, dam safety, pest prevention, and drought preparedness and mitigation.
- Privatization and Post-Privatization Assistance through:
 - Further pursuit of the land reform agenda including allocation of physical parcels, land registration, and development of land markets;
 - Post-privatization assistance to new private farmers and entrepreneurs, including development of marketing institutions and advisory services; and
 - Development of sustainable rural financial services for new private farmers.
- Rural Infrastructure and Services by:
 - Developing rural roads (Kazakhstan):
 - Improving rural water supply and sanitation including water quality in all countries:
 - Reducing the gap in education levels between urban and rural areas by providing classroom equipment (especially textbooks), paying teachers' salaries, and heating schools;
 - Strengthening the municipal capacity to improve health delivery; and
 - Consolidating health facilities to raise efficiency, targeting key health interventions to improve well being, for example, iodizing salt to improve nutritional levels.

In Uzbekistan,³ a “slow” reformer,” ECA should:

- Maintain the policy dialogue;
- Engage in operations which support implementation of policy reforms or rehabilitation of key infrastructure and maintain rural livelihoods, including:
 - Farm restructuring, market/price liberalization and related farm investments
 - Irrigation, drainage and wetland rehabilitation
 - Integrated pest management, and
 - Rural water and sanitation
- Support key social services, including primary health care in rural areas; and

³ The Bank (or ECA) would support a similar agenda in Turkmenistan if lending resumes, focusing initially on improved water management and irrigation infrastructure rehabilitation, and improved pest management and crop protection.

- Focus on improving the quality of teaching by ensuring salaries are paid for teachers, and improving attendance and learning by providing heat and school materials.

2.9 Regional Seas

Sustainable management of each of the ECA regional seas and river basins poses unique challenges. These are discussed briefly below.

2.9.1 *Black Sea/Danube Basin*

Nutrient run-off reduces water quality and causes loss of fisheries. Poor water quality and poor coastal zone management reduce tourism revenues. Black Sea/Danube wetlands are one key to ecosystems conservation and water quality in the Black Sea. Investments to improve water quality have benefits external to individual countries, leading to sub-optimal investment decisions by national governments. Priorities should include: greater use of environmentally friendly farming methods; wetland restoration; municipal wastewater improvements; flood/hazardous waste management, and control of oil spills.

2.9.2 *Caspian Sea Basin*

Extensive damming of the Volga River has reduced wetlands and spawning grounds for key fisheries, including sturgeon. Oil development, especially offshore in Azerbaijan has led to widespread pollution, loss of ecosystems, and negative health impacts. Uneven enforcement of fisheries off-take regulations leads to unsustainability of fish resources. Priorities should include:

- Improving cooperation among riparians;
- Better management of hazardous waste and oil spills;
- Conservation of marine, delta, and coastal eco systems;
- Improved management of sturgeon and other fisheries resources; and
- Municipal water and waste water improvements.

2.9.3 *Baltic Sea Basin*

Poor policies in the past, such as lack of regulatory and pricing instruments,⁴ and high pollution levels from nutrient run-off and industrial pollution in Baltic Sea watershed, have caused losses in tourism and recreation values and have damaged fragile ecosystems. The situation is improving with help of Scandinavian riparian partners. Priorities should include: better fisheries resource monitoring and management; wetland restoration; improved coastal zone management; and better manure management and farming methods to control non-point source pollution.

⁴ Improved urban wastewater treatment and solid waste management are not covered in the rural strategy, but are also priorities for addressing river and coastal pollution. After initial efficiency gains from improved policies are achieved, a particular challenge will be the balance between improving environmental standards and the affordability of these standards, costs for which are passed on to the urban population.

2.9.4 Aral⁵ Sea Basin

There is extensive diversion of water for irrigation from the Syr Darya and the Amu Darya rivers, which drain into the Aral Sea. While irrigated area has doubled since 1950 to 8 million hectares, the inflow of water to the sea has declined from 60 to 5-20 (*Please double check this last figure...5.2?*) billion m³, reducing the area of the Aral Sea by two-thirds. This has caused widespread land and water contamination from blowing salts and saline groundwater and has led to destruction of globally significant wetland ecosystems. Poor irrigation and drainage management including excessive irrigation, have led to salinization and water logging on existing irrigated areas. Nevertheless, analysis to date indicates that irrigation remains economic under a market-based regime in the great majority of schemes, providing management and productivity are improved. Increase in fossil fuel energy prices for upstream riparians has led to use of hydro power for energy production in winter especially in The Kyrgyz Republic, reducing downstream flows for irrigation in the summer especially in Kazakhstan.

Priorities should include:

- Better irrigation water management and drainage to reduce salinity and increase soil fertility through investment, policy reform, and public awareness;
- Improved cooperation among riparians;
- More focus on addressing the energy needs of the upstream riparians;
- Improved water supply and sanitation to mitigate health impacts of poor quality water;
- Wetland ecosystems restoration; and
- Salt and water flow monitoring and dam safety.

2.10 Summary of Lending

The table below summarizes the confluence of subregional priorities and thematic priorities, taking into account need, capacity and willingness/ability to borrow.

⁵ In ECA to date, apart from one fisheries project in Albania, support to fishermen's associations in Romania, and assistance with sturgeon recovery, we have not been much involved in fisheries. The Bank's Rural Development network (RDV) is beginning a new initiative on fisheries.

Table 1: Priority Actions for Rural Development in the Region

Priority Actions	Central Europe Baltics	Romania Bulgaria Moldova	Albania	Balkans	Turkey	Core CIS	Cau- Causus	Central Asia
Policy Reform		√			√	√		
Land Reform		√	√	√		√	√	√
Irrigation and drainage		√	√					√
Knowledge/info systems		√	√	√			√	√
Quality and safety	√	√						
Agricultural marketing		√		√	√			?
Rural finance		√	√			√	√	√
Roads, telecomms, energy	√	√	√			√	√	√
Water supply & sanitation		√	√			√	√	√
Health								√
Education			√		√			√
Land Management		√	√		√	√	√	√
Water Management		√					√	√
Forests		√	√		√	√	√	√
Regional Seas		√						√
Natural Disasters	√	√			√		√	√
Financial Risks		√						

CHAPTER 3

THEMATIC STRATEGIES

3.1 Lessons from Experience

In developing this strategy, the ECA region undertook a review of past experience in order to identify approaches that have worked well and to adjust or rethink those that have been less successful. As part of this process, a number of lessons have been learned that guide the strategy presented in the following sections. Key generic lessons are summarized below and discussed in more detail later in this chapter.

Lesson 1: Policy reform is a critical ingredient for rural development and the Bank can be instrumental in supporting important progress in this area, but there must be adequate attention to political economy issues, sequencing, pacing, and complementary investment for development to succeed.

In the early 1990s, the Bank's policy focus was on liberalization and privatization of assets, on deregulation, and on reducing the role of government in the economy, with the main emphasis on growth and less on poverty reduction. In general, investment support followed only when policy reforms were well advanced. Over the last decade, this approach has evolved.

While it remains true that reform of prices and trade, and farm and enterprise privatization should generally precede any significant investment, with poverty reduction as the Bank's over-arching objective, there are certain conditions under which the Bank should be willing to make rural investments in the absence of reforms. Specifically, the strategy will consider modest investments in a distorted policy environment when economic and financial returns are highly positive, when the investment directly benefits a substantial number of poor people (and is a practical way to transfer resources in the absence of a well-functioning social safety net), and when delaying investments until policy reforms are in place would further increase the unit costs of investment as in the case of infrastructure deterioration. For example, in Uzbekistan, ECA has agreed to invest in rehabilitation of key pumping stations and irrigation delivery systems, despite distortions in water pricing and broader agricultural policies, because both economic and financial rates of return are high and because of the underlying positive impact the project is expected to have on the rural population. The Bank has also invested in irrigation rehabilitation in Tajikistan, the poorest country in the region, for the same reason.

On the other hand, the ECA strategy also calls for delaying many investment until reforms are in place, especially when distortions are protecting the sector and creating a constituency against reform. For example, in Turkey, during the 1990s when there were subsidies on fertilizer and credit and other distortions the Bank refrained from investing in activities aimed at increasing agricultural production (although it did support poverty targeted rural interventions and establishment of water user associations, an area where Government *was* willing to undertake reforms).

The Bank has learned that judicious support for investments can actually help further the reform process. For example, in Uzbekistan, modest policy reforms on pricing and marketing are being achieved by investing in irrigation rehabilitation and rural finance. In Romania, the Government was encouraged to

eliminate all subsidized interest rates in rural areas through Bank support to develop a sustainable rural finance system.

Lesson 2: Simple project design works best

The Bank has learned from evaluations of its projects, as well as from its regional stakeholders that focused projects with clear objectives are most likely to achieve success. Projects should be geographically focused if they support an agenda with several activities such as community-based watershed rehabilitation, rural infrastructure, land reform and farm restructuring with redesign of field irrigation systems, or they should support only one area of intervention if they are nationally focused, for example, community-based micro-credit. Complex, national-level projects have consistently worked less well. For example, the Azerbaijan Farm Privatization Project was a complex project with interventions in technical assistance, training, institutional development, credit, and irrigation rehabilitation. However, it focused on only six pilot farms. This allowed the operation to be carried out effectively, and then later “scaled up” to other farms in the country. Another example is the Albania micro-credit project. This project has nationwide coverage, but is confined to one single area of intervention: micro-credit. The successful nationwide coverage of this project has been made possible by the fact that the set of issues covered is limited.

Lesson 3: Market reforms bring gains in efficiency, but can also bring increased risk to the population. These risks must be recognized and, to the extent possible, measures should be introduced to help offset them.

Trade reform exposes countries to the volatility of international prices. Elimination of fixed prices for inputs or outputs subjects producers to the vagaries of market fluctuations. Privatization and hard budget constraints subject enterprises to the variability of the business environment. These risks are a normal part of a market economy. In most developed countries, however, instruments exist to help mitigate such risks, for example, insurance, hedging and futures markets, or emergency credit lines. Many ECA countries find themselves facing new market risks without normal risk mitigation instruments in place. It is essential to understand the nature of these risks and adapt accordingly. For example, in Bulgaria, the Government was reluctant to reduce to a minimum the level of state wheat reserves, based on bad experiences in 1997 when private importers did not provide adequate supplies to market in the face of domestic grain shortages due to their inability to obtain letters of credit from their banks. As a result, the Bank helped the Government design a program that left reserve levels higher than might be dictated by economic efficiency considerations but introduced complementary mechanisms to minimize the effect of high grain stocks on market prices and quantities. In Ukraine, the Bank is helping the Government design a weather insurance program and a commodity price hedging program to reduce the risks for financial institutions lending to the agricultural sector.

Lesson 4: Community-driven approaches to investment selection empower communities and bring commitment and ownership to managing investments in a sustainable way. However, they are often in conflict with “top-down” approaches based on rational economic planning approaches and this can create tensions.

Traditional planning approaches, based on economic rates of return, allow national level funding to be allocated according to its highest rate of return and provide a transparent way of ensuring that resources are allocated efficiently and fairly. However, this approach is not necessarily consistent with a bottom-up approach of allowing communities to choose the investments they consider of the highest priority. This latter approach gives communities a greater stake in the investments and typically leads to higher satisfaction and greater willingness to contribute to project operations and maintenance. This

tension surfaced in the case of a Rural Infrastructure Project in Romania, where there was support for developing the responsibility of local *communa* to identify, prepare, and appraise projects of their own selection, and also support for allocating national public funds, for example, the National Road Fund, according to objective criteria based on EU network priorities and rates of return. Balancing these tensions is not easy and there is no right answer. All stakeholders must be brought into the process and a solution that does not go in either extreme is likely to be best.

Lesson 5: Long-term and short-term trade offs need more explicit attention in the design of rural investments and policies.

Many economic policies aimed at immediate fiscal benefits have longer-term impacts that need to be taken into account in weighing the merits of specific reforms. For example, introduction of market prices for thermal energy has led poor rural populations in the Caucasus to cut trees and use dung for fuel, degrading the environment, causing deforestation, erosion, and reductions in soil fertility, thus reducing the stream of future benefits. Explicit consideration of such effects ex-ante may suggest optimal policies that differ from those traditionally recommended, or may allow consideration of measures to mitigate damaging long term effects.

Lesson 6: Governments may play a more important role in facilitating rural development than previously acknowledged.

The Bank's approach to institutions, to governance, and to public/private roles in economic activity has also undergone some change. There may be a greater role for government than was anticipated at the start of transition, particularly when many complementary markets are not yet functioning. Withdrawal of the state from specific economic activities when the result leaves a vacuum or a private monopoly is often not in the best interests of stakeholders and cushioning the transition with effective support by the Government can sometimes be an appropriate solution.

3.2 Subsectoral (Thematic) Strategies

The priorities for subsector work are based on a recognition of the need to be selective, to focus on support in areas where the Bank can complement its partners, where clients say they most want Bank assistance, and where successful models for intervention exist. In several instances, for example, jumpstarting rural business and agro-industry; and addressing rural energy needs, where there are not yet functional models, we will endeavor to learn from experience elsewhere and work with clients to find solutions.

The overall ECA objective is to support the improvement of productivity and well-being in rural areas. Within this broad, overarching goal, there are five areas on where we plan to concentrate our efforts over the near term. In individual countries, of course, the priorities for attention are considerably narrower, as discussed above.

Agricultural productivity and value-added: given that in most poor ECA countries agriculture plays a key role in the economy and in employment, this sector will be a necessary engine for growth and poverty reduction.

Off-farm rural enterprise: as a critical upstream and downstream complement to agricultural development, to provide alternative employment opportunities and allow agriculture to shed labor, and to provide a service economy to enhance rural livelihoods.

Physical and social infrastructure: including roads, water supply and sanitation, energy, telecommunications, education, health, pensions, and social safety nets to provide for rural growth and wellbeing.

Land, water, and forest management: for conservation, for growth, and to ensure sustainability of growth.

Risk mitigation: to prepare for and to mitigate effects of natural and man-made disasters and to develop instruments to offset financial risks.

Each of these issues is discussed in detail below.

3.3 Agricultural Productivity and Value Added

Agriculture contributes an important share of GDP in most ECA countries, especially the poorer ones. It also remains far below its economic potential in most countries. It is clear that there will be a critical need to foster increased productivity and value added for some time. This must be done carefully, recognizing that the normal development process usually entails a declining share of agricultural in the economy, that many ECA countries artificially supported their agricultural sectors with unsustainable subsidies, and that even the absolute size of the sector may need to shrink (certainly specific sub-sectors) in some countries. That said, there is a clear need to increase the productivity of those factors which remain in agricultural production and we have chosen to focus our efforts on five areas we see as key:

- Transition to Market-Oriented Policies
- Farm Restructuring and Improved Land Administration
- Irrigation and Drainage
- Knowledge and Information Systems
- Agricultural/Livestock Quality and Safety Standards

3.3.1 Transition to Market-oriented Policies

Context and Lessons Learned: Most ECA countries have liberalized prices, including reduction or elimination of distortionary taxes and subsidies, have de-regulated domestic marketing restrictions, including elimination of state orders that require farmers to sell a minimum quantity of certain commodities, and have reduced state participation in productive and commercial activities such as input supply and processing.

Such policy reform has been done in an environment marked by highly distorted world commodity prices, due to large-scale subsidies in US and EU, which lead to low world prices, large food aid flows, and high levels of global production. ECA countries have often perceived that a movement toward minimum intervention in their domestic commodity markets, however efficient, puts their farmers at a competitive disadvantage in the world markets. Moreover, EU accession countries anticipate becoming part of the Common Agricultural Program (CAP) of the EU upon membership and seek to align their domestic price, trade, and marketing regimes with those of their EU counterparts.

Policy reform in ECA has also been undertaken in the context of highly volatile world commodity prices where movement toward increased freedom for trading agricultural commodities leads to more instability in income than was the case prior to reform. This situation is exacerbated by the lack of risk-reducing mechanisms available to these countries to help offset some of the price risk associated with such liberalization. Not surprisingly, many countries have resisted exposing their rural populations

to this price risk in the absence of risk reducing financial instruments. Finally, these reforms have been carried out in the context of poorly developed capital markets, where withdrawal of the state as an economic agent often does not lead to establishment of a private sector alternative, even if the activity would likely prove lucrative financially. The weak banking institutions and the lack of credit history on the part of clients combine to impede new entry into many markets, especially those in rural areas.

Approach. The region will work with EU and US to help improve understanding of the negative effects on the agricultural sectors of CEE and CIS economies of commodity subsidies, especially from food aid. An agenda that encourages clients to move toward full liberalization of food imports in the context of export subsidies from OECD countries is not to their advantage. Rather, there needs to be a balance between taking advantage of such subsidies for their food consumers and not allowing serious damage to their agricultural sectors as goods are imported below cost. There should also be a balanced approach to policy reform in EU accession countries, recognizing that CAP will evolve but that subsidies will remain a prominent part of the landscape. The focus will be on making them efficient, transparent and targeted rather than insisting on their elimination.

There are some issues that are politically charged, for example, food reserves. Pressing for accelerated reforms before their is political acceptance on this issue has lead to later backtracking. The region will instead work at a more gradual pace on those particular topics, investing additional resources into building support among stakeholders for forward progress. **Box 1** describes a recent successful adjustment loan in Bulgaria and illustrates how the ECA region and the Government worked out a program where wheat reserves remained above economically efficient levels because of the political fears of food shortages based on past experience, but this was combined with the introduction of mechanisms to limit the negative impact of the holdings on markets and prices.

Where tough policy reforms will have negative effects on various population groups there will be an effort to provide simultaneous investment support. For example, in Turkey we have complemented adjustment lending with a large investment operation that has helped to replace price and input supports to farmers with direct income subsidies and has helped farmers switch crops from those which are currently over-produced such as hazelnuts and tobacco and which depend on heavy subsidies. The investment project which provided this support is described in **Box 2**.

Geographical focus: While supporting policy reform in all countries, Russia, Uzbekistan, Turkmenistan, and Belarus should be the countries of focus for dialogue in the future.

3.3.2 *Farm Restructuring and Improved Land Administration*

Context and Lessons learned: The region is helping client countries with farm restructuring, land privatization, creation of modern cadastres, titling and registration, and development of land markets. Regularizing land ownership is key to the development of a modern market economy as land is a crucial asset for the rural population. For land to be bought and sold, or used as collateral in credit, titles need to be clear.

With regard to farm restructuring and land privatization, certain steps make the process relatively more likely to succeed. For example, farm members should be well informed about their choices and their rights and responsibilities during the farm restructuring process. There should be a balance between equity and efficiency in the way land is broken up into operational units. Land should be distributed in the form of physically demarcated plots to members, with titles specifying ownership of specific parcels. These parcels should be titled and registered.

Policy adjustment operations need the commitment of elected officials as well as technocrats to be successful, and to take account of political realities in their design

***Box1: Bulgaria - Agricultural Sector Adjustment Loans I&II FY-1999 and FY-2001,
(Euro 71.12 Million and Euro 55.8 Million)***

Bulgaria has a diversified agriculture, with fertile soils and a favorable climate. Summer irrigation is required for some crops. Agriculture contributes 23% of GDP and accounts for 19% of merchandise exports. Before World War 2 there were about 1.1 million family farms averaging 4.3 ha, but by the end of the communist period 90% of land was in cooperatives or, increasingly, agro-industrial complexes averaging 24,000 hectares. Input use was intensive and livestock production was subsidized.

After 1990, the first priority was given to dismantling the large complexes, and land and non-land assets, including livestock, were distributed to former owners. Most input prices were decontrolled. However, new owners were often ill-equipped to manage their new assets and price controls were maintained on outputs in order to keep food prices low for the urban population. Illegal exports were substantial; fertilizer use declined by 75% and production in 1997 was only 45% of the 1989 levels. There was great instability in the trade regime, and import tariffs were high on fertilizer, a key input. State intervention in cereals marketing and credit continued. By the mid 1990s, macroeconomic imbalances and lack of structural reforms combined to cause a financial crisis.

A new government was elected in 1997 with a strong commitment to market reform. Government eliminated export bans and controls on profit margins of agriculture and food, eliminated most import quotas and duties on cereals, liberalized markets and abolished subsidies for cereal products. The government also has a program with the IMF.

The objectives of the sector adjustment loans were to promote efficiency in the agricultural sector, contributing to rural employment generation, better living standards and more consumer choice through:

- Promotion of a land market, including restitution of 80% of land area eligible and several administrative measures to facilitate land transactions.
- Development of a private grain market by privatizing the grain marketing agency, and limiting the State Grain reserves stock levels to agreed amounts.
- Privatizing agricultural enterprises including agreed numbers of grain mills, seed, and food industries
- Privatizing irrigation systems through decentralization transfer of management of operation and maintenance to water users associations on at least 100,000 ha.
- Improving agricultural financing according to agreed criteria.
- Liberalizing trade in most agricultural products.
- Improved forest legislation and increased community based participation in forest management.

Each loan was a one-tranche operation, supporting a medium-term program. The Government took all of the designated steps before each of the loans went to the Board. A key feature of the Bulgaria adjustment program is that it had the full support of the elected government and Parliament. Another feature was the willingness of the Bank to adjust the state reserves condition in response to perceived risks of food shortages by the Government in light of tensions in Kosovo over the period of the loan.

Far reaching policy reforming generally need to be accompanied by support for investment to be sustainable

**Box2: Turkey - From the Economic Reform to the Agricultural Reform Implementation Project
(Project Cost: US\$600 Million)**

Most observers agree that Turkey has tremendous potential for rural growth, but this has gone largely unrealized. Over the last 20 years, while overall GNP was growing at around 3.4 percent per year, agriculture grew about a third of that rate. Efficient development of rural areas and agriculture, in particular, has been impeded by heavy Government interventions in the sector, which have created a net inflow of resources from the Government to agriculture, but have had many negative effects on the sector and the economy at large. While the Government has in the past agreed in principle with the Bank that the system needs to be reformed, there was, until recently, only marginal progress in this direction, and numerous reversals in the face of political opposition and weak governments.

The World Bank was heavily involved in lending for Turkish agriculture in the 1980s. However, because of the poor policy environment, there was limited development impact. Recognizing the effect of adverse policies on the performance of projects, the Bank's involvement in the sector was limited in the 1990s, though support continued to poverty reduction and NRM, research and decentralization of irrigation management.

The Bank carried out sector work and policy dialogue through a series of "agricultural support policy notes," disseminated in workshops with representatives of Government and civil society. These notes analyzed the effects of current agricultural support policies and suggested how the legitimate goals could be better met by phasing out current support measures and substituting direct income support payments to farmers.

In 1999, a new and reform-minded Government came to power. The Government formulated a wide-ranging program of macro-economic stabilization and adjustment. The Government's agriculture reform program encompasses three main initiatives designed to reduce the heavy burden on the budget and Turkish consumers, while promoting agricultural growth. The first is to introduce a unified national program of direct income support to improve the access of smaller farmers to budget support and to encourage new income generation initiatives. Second, the Government is phasing out the system of subsidies for fertilizer, credit, and price supports, which disproportionately benefit large farmers and regressively tax consumers. The third initiative is to privatize state enterprises in agriculture to reduce Government involvement in the marketing and processing of agricultural products.

The Bank has been supporting adjustment in agriculture and other sectors through the Economic Reform Loan, approved by the Board in May 2000. Agreement on operationalizing the recommendations in the agricultural support policy notes was reached during ERL preparation. However, full implementation requires financial support over a time horizon extending well past ERL. This is being provided through the Agricultural Reform Implementation Project (ARIP) approved in 2001, which includes components to assist in setting up the direct income support system, to transform the government-dominated cooperative system into a true member-operated coop network, and to help farmers switch crops as price supports are removed and the crop-specific state economic enterprises are privatized.

Restructuring works best if the original collective entity is legally dissolved and new legal entities in the form of individual farms or associations of farmers are created in their stead. Non-land assets should also be distributed fairly among members and debt liabilities must be addressed. Restructuring and liquidating the debt as part of the farm restructuring process is appropriate but should be a one-off event upon the dissolution of the original entity. All future liabilities should be treated through normal legal procedures. Experience has also shown that post-privatization support, such as credit and advisory services, is an ingredient of successful restructuring programs. Azerbaijan is a good example as described in **Box 3** below.

***Post privatization support is a key ingredient of successful farm privatization
Supporting a number of interventions over a limited geographical area, rather than attempting nation-wide
changes, provides tangible benefits for rural populations and opportunities for adapting and “scaling up”***

***Box 3: Azerbaijan - Farm Privatization Project, FY-1996
(Project Cost: US\$28.8 Million)***

Azerbaijan has 8 million people and GNP per capita is US\$480. Agriculture in Azerbaijan is diverse in terms of crop mix. The sector contributes 20 percent of GDP, accounts for 36 percent of employment and is a significant source of exports, mostly from cotton and horticulture. Irrigation is used on 75 percent of the land and 46 percent of the population lives in rural areas. Most farms were collectives or state farms and following independence, production and input use declined dramatically. The Government is committed to restructuring and privatizing the agricultural sector and reducing its role in marketing and agro-processing, but the process has been slow and difficult.

The project objectives were:

- To provide replicable models for farm restructuring on six farms covering 15,000 ha and 4000 households;
- To increase productivity and farm incomes and to promote an enabling environment for privatized agriculture.

The Project privatized and restructured six collective farms, balancing considerations of equity and efficiency. It provided information to farm members to allow them to control the process according to their own preferences. Farms were surveyed and mapped, members were allowed to group themselves voluntarily into associations or to remain independent. Land was allocated according to transparent and efficient criteria that were perceived as fair. The new plots were then titled and registered. All land transactions have been allowed, including sales, leasing, and mortgaging. Post-privatization support was then provided through the organization of water user associations. Also provided was rehabilitation of the main irrigation water supply and drainage works, credit for seasonal inputs and machinery, as well as through communal outreach and business centers.

New private farms have been effectively created on nearly 12,000 ha. All of this land has been titled and land registration is almost complete throughout the country. Most farmers have joined water user associations, and progress has been made with rehabilitation of irrigation and drainage works. The credit program, while not creating sustainable intermediation services, has successfully lent and recovered funds. There have been some delays in establishing the farmer information and advisory services.

Key Lessons: The information campaign to farmers, informing them of their rights and opportunities, gave credibility to the program and engendered support by farmers. High level political support and commitment to the program were key to motivate local authorities to push forward. Using a lottery system to assign land parcels was perceived as very fair and transparent. Provision of credit and infrastructure was critical in making the new farms operational after privatization. This latter was further supported by the write off of all farm debts as the collective farms were dissolved. This project was extremely complex, supporting numerous interventions in different areas. This holistic approach was seen as key for successful Project outcome. To compensate for project complexity, project support was limited to a confined geographical area, and this appears to have further contributed to the good results. This approach has been “replicated” or “scaled up” in other parts of Azerbaijan.

With regard to improving land administration, clear institutional responsibilities are critical. Technologies should be simple to keep costs low and affordable for poorer farmers. New cadastres and mapping are expensive and justified only when land markets are already developing, as in the more advanced countries such as Croatia. There should be a unified registry for all immovable property, both

rural and urban. Finally, good public information and transparency in the process are key for success. Box 4 (below) on a project in Georgia illustrates the importance of these lessons.

Approach: With regard to farm restructuring and privatization, we will support the break-up of collectives and will support allocation of physical land parcels to beneficiaries with full legal ownership, duly titled and registered. In certain cases, such as Central Asia, long-term leases from the state may be an acceptable second-best solution.

No particular concept of farm size should be imposed. Rather, farmers should be allowed to choose between autonomy and economies of scale, balancing the desire for equity, (recognizing that pushed to the extreme, establishment of only individual family plots leads to fragmentation and subsistence farming, such as in Armenia, Moldova, and Albania) with the desire for efficiency (recognizing that the extreme at this end can lead to little structural change with ex-state and collective farm managers simply gaining control over all of the land they previously managed, such as in Kazakhstan).

Complementary post-privatization support may be necessary in some instances to assure the viability of these newly created entities that have no access to capital markets due to lack of credit histories, at least for their first year of operation. In Moldova, homestead grants were provided on a once-off basis to new landowners upon presentation of a newly minted title. In Azerbaijan, on-farm irrigation rehabilitation and credit were provided under a highly successful pilot project that spread rapidly across the country without further Bank/IDA support. This project is described in **Box 3**, which also illustrates a “generic” lesson regarding the need for clear geographic focus of projects with several interventions.

3.3.3 *Irrigation and drainage*

Context and Lessons Learned: There was heavy investment in irrigation and drainage systems during Soviet times, and the network across the region is extensive. In the arid countries of Central Asia and parts of the Caucasus, irrigation is essential for crop production, for example, 89 percent of arable land in Uzbekistan is dependent on irrigation. About 35 million people depend on irrigated farming in Central Asia. In Southeastern Europe, Turkey, and parts of the Caucasus, irrigation systems are also widespread although there they are aimed at supplementary irrigation to increase yields and reduce vulnerability to drought (19 percent of the farm land in Bulgaria is under irrigation). In many of the countries, the importance of irrigation is evident in the value of agricultural products that include cotton and textiles, leather goods, processed meat, fruit and vegetables. For example, in Turkey, irrigated land accounts for 15 percent of arable area but 70 percent of the value of agricultural output.

Throughout the region except in Turkey, irrigation infrastructure was developed for large farms and in some cases, was based on high pumping lifts dependent on subsidized energy prices. Many of the original systems are not viable if market prices are charged for energy. It is estimated, for example, that out of the three million hectares developed for irrigation in Romania, only one million hectares can economically be irrigated under current conditions. Since 1990, with the deterioration in economic conditions, in public sector finances, and in institutions, maintenance of critical irrigation and drainage networks has been increasingly difficult. Deterioration in the quality of infrastructure has led to increasingly inefficient water use, water losses, water-logging, drainage, and salinity problems, especially in Central Asia but also elsewhere in ECA.

Land reform and land registration projects generally work best when they build on successful pilots, when there is one agency for real property registration, and when they are adapted to what is politically achievable.

***Box 4: Georgia - Agricultural Development Project - IDA Credit 1997, (Cost SDR 10.4 Million)
Land Registration Component***

Georgia has a land area of 87,000 km² and 6 million people, of whom 40 percent are rural. Agriculture accounts for 26 percent of GDP. The Agricultural Development Project aims at promoting private sector led agricultural growth in Georgia where per capita GDP is now only US\$970.

After Independence, the Government moved quickly to privatize farmland. IDA provided a project with a land registration component aimed to develop real property markets that permit low cost transfers of land through sales and leases, in an effort to improve the efficient use of agricultural land. Started in 1997, this IDA sub-project, with support of IFAD and other donors, has achieved many of its objectives already. The sub-project is US\$6 million, though since 1998, Georgia has attracted USAID grants of about US\$2 million for enterprise and rural land titling and registration. In 2000, a German loan on IDA terms of about US\$15 million was extended registering most remaining properties in Georgia using the project model.

The IDA Project built on the pilot registration projects supported by EU-TACIS in two Georgian villages starting in 1995. It supported the adoption of a registration law and its implementation, and an institutional framework for land administration. Operational registration offices were established in 2 rayons that, by March 2000, had registered 20,000 titles to real estate in rural and urban areas. These two offices are also serving as models for the remaining rayons that KFW, USAID, and UNDP are supporting. Both offices are running computerized registration systems. At project end in 2003, it is expected that about 500,000 titles will be registered.

One of the lessons has been that the single agency model for real property registration is a major contributor to project success. The Georgian agency is based in the new State Department of Land Management that reports to the President of Georgia. This is compared with the European model of splitting the functions into two agencies – one in the Ministry of Justice, the other in a cadastre agency in a separate ministry. Another important lesson is that starting small and learning by doing is a useful way to test systems. These systems can then be modified as needed and then expanded rapidly. A third lesson was that land policy reforms are necessary to generate benefits from the project, and that it is important to press forward in this area, even if reforms must be implemented gradually as the political economy allows. A final lesson has been that it is particularly important to have the registration and cadastre law in place from the start.

Approach: In the early and mid 1990s, the Bank argued that key policy reforms should be in place before we undertook major sector investments. There has been increasing recognition, however, especially in Central Asia, but also in the drier parts of the Caucasus and SE Europe including Southern Ukraine, that it may be justified to move forward with investments in the absence of all reforms. The conditions under which this may make sense are described in above and are especially relevant for irrigation. In sum, investments in irrigation may be justified if: (a) ERRs and FRRs are acceptably high; (b) a large number of poor will benefit; and (c) unit investment costs for rehabilitation would rise as a result of delays, for example, from continued deterioration.

Being willing to invest prior to price and marketing reforms is part of the new strategy. In the past, the Bank has waited to invest, and many poor farmers, especially in Central Asia, have seen their conditions worsen. While there are advantages to using the incentive of Bank support to bring about reform, modest support can also help to bring economic and environmental benefits to a low-income region. Since most of the policy distortions that currently exist implicitly tax farmers, a project that

shows adequate rates of return under current conditions will generate even greater returns as reforms are nurtured in the future. Moreover, being engaged in this critical sector, seen as very important by client governments, will improve the dialogue with governments on specific policy issues in a more meaningful way.

Institutionally, the approach is to devolve increasing responsibility to water user associations, including ownership rights and coverage of operations and maintenance charges. Support to water user associations has been successful in improving water management at the on-farm level but these associations cannot by themselves address the problem of deterioration in the main irrigation delivery systems. Support for these main systems will need to come from the public sector due to: (a) the large-scale nature of the investment; (b) the lack of “divisibility” by beneficiary; and (c) the complications from multiple use (in many cases, water going to urban or industrial consumption).

The Albania Irrigation Rehabilitation project (**Box 5**) illustrates a community-based approach to irrigation management which has succeeded in a broader context of government instability, while the Uzbekistan Karshi Pumps and Proposed Drainage and Poverty Reduction projects (**Box 6**) illustrate how economically viable investments can help reduce rural poverty even in slow reforming countries.

A pragmatic approach to cost-recovery is appropriate, recognizing that most investment is for rehabilitation of existing structures, not for brand new installations, and that a transitional period to move from previous arrangements to new, more efficient ones may take some time. There are many reasons why full cost recovery may need to be introduced on a phased basis. Farmers cannot pay the full costs for water if they do not receive a reliable supply. Poor delivery may be the result of various factors, including inefficient public sector management or deteriorated infrastructure. Reform of public water institutions can take many years, and the “excess” costs to water delivery engendered by institutional inefficiency should not necessarily be passed on to farmers. Moreover, cost recovery can be quite difficult technically, as meters do not exist in most places and they are expensive to install and to monitor. As these investments are made, cost-recovery programs can be gradually introduced.

The approach to irrigation and drainage varies across the region. In countries with large-scale river-based irrigation systems, governments should continue to take responsibility for water resource development and management because of the very large-scale and multi-sectoral implications of investment and operations, as well as the externalities. Farmers and water user associations should have responsibility for smaller schemes and on-farm water management, although there should be regulation of groundwater withdrawals.

Geographical focus: In central and southeastern Europe and Turkey, the focus will be on restructuring irrigation agencies and supporting water user associations. In Central Asia and the Caucasus, focus will be on improving water delivery through rehabilitation of major systems and supporting WUAs and on-farm rehabilitation.

3.3.4 *Knowledge Management and Information Systems*

Context and lessons learned: Before 1990, most farms were organized in large collectives, and technical information and research were oriented towards large-scale, not always economic, farming. New private farmers were often specialized farm laborers in their previous jobs and do not know how to run an individual farm either technically or as a business entity. Moreover, there is little tradition of information dissemination as most collective farms had their own agronomist and business manager. Little applied research was done by the Academies of Science and there were few extension services.

Providing business and technical advice to farmers can have a positive impact on productivity. However, the “externalities” associated with good extension and advisory services make full or even significant cost recovery inappropriate. Dissemination practices should encourage sharing of information to maximize benefits for any given intervention, and requiring full cost recovery leads farmers to “horde” their information lest others capture the benefits for which they have paid. Experience in OECD countries has shown that cost recovery generally works best when there is a contractual relationship between the grower and the buyer and for very specific commodities. Some cost recovery, nevertheless, is appropriate to ensure real demand and ownership and to offset a share of the fiscal costs.

Supporting new Water User Associations with investments in infrastructure rehabilitation empowers farmers and helps bring commitment to further institutional reform.

***Box 5: Albania -Irrigation Project, FY-1993
(Project Cost: US\$45.7 Million)***

Albania, the poorest country in Europe, has 3.3 million people of whom 60 percent live in rural areas. Agriculture accounts for over 50 percent of GDP and 80 percent of the poor live in rural areas and rural poverty is widespread. Rural population densities are high; arable land per person is only 0.18 ha. Land privatization has progressed rapidly. Irrigation is aimed at increasing yields, and about half of cropped land is irrigated.

The objectives of the Albania Irrigation Project were to improve rural living standards and to increase agricultural production by rehabilitating 90,000 ha of irrigation and 80,000 ha of drainage infrastructure in nine coastal districts in Albania. It supported Water User Associations, which initially managed tertiary canals, and have moved on to manage secondary and primary distribution systems on 21,000 ha. The project was completed two years ahead of schedule and led to a substantial increase in production of high value summer crops and in family incomes. A second irrigation rehabilitation project is now under implementation. The project was successful for the following reasons:

- It established trust between farmers and the project, by first rehabilitating canals and then gradually empowering farmers. Water User Associations (WUAs) were started on a pilot basis. Once there were ‘results on the ground,’ they were provided with autonomy to determine irrigation charges themselves.
- The project relied on the emerging local private construction sector through implementation of 270 small contracts and supervised these carefully; and
- Senior government officials helped to disseminate the concept of WUAs to farmers, having themselves been convinced by field trips to Turkey.

A second project is now under implementation which aims to strengthen WUAs and establish a legal framework for them, to move towards reforming the large state owned water enterprises and to develop a new water code. One lesson of the first project is that there is a greater likelihood of these “framework” reforms succeeding if there is successful implementation of initial institutional reforms at local level.

Even in slow reforming countries investments in infrastructure rehabilitation are justified where economic returns are positive, where they benefit large numbers of poor people, and where delaying investments would threaten livelihoods and increase the costs of future investments.

**Box 6: Uzbekistan – Drainage and Poverty Reduction Project, FY-2003
(Estimated Cost US\$70.0 Million)**

Irrigated agriculture is the backbone of the Uzbek economy, comprising 31 percent of GDP, 60 percent of foreign exchange earnings and 45 percent of employment. The climate is arid and agriculture is dependent on irrigation, which covers 4 million ha. Irrigation water is drawn from the Amu Darya, draining into the Aral Sea. Poor drainage practices have led to increasing water-logging and salinity problems and declining productivity, especially in Karalpakstan in the Amu Darya Delta in northern Uzbekistan, where the population is at the “tail-end” of the irrigation system and where poverty levels are substantially higher than elsewhere in the country.

Project objectives are to improve the production base for agriculture, livestock, and fisheries through better disposal of drainage water and through wetland and grassland rehabilitation on the lower Amu Darya River and Delta, thereby: (a) reducing river salinity and improving water quality; (b) facilitating the discharge and disposal of drainage water from irrigated areas; (c) laying the basis for rehabilitation of the inter-farm and on-farm drainage systems; and (d) minimizing risk from drought and restoring livelihoods for the population in and around the delta while restoring delta ecosystems.

Components include: (a) infrastructure for drainage water disposal, including reconstruction of the main drainage system and of collector and control facilities; (b) support to water user associations for taking over responsibility for operation and maintenance of field irrigation and drainage systems; and (c) wetland restoration, building on the successful model of rehabilitation of Sudochi wetland under the GEF funded Aral Sea project.

The project design incorporates lessons learned from other operations including the need to keep project concept, scope, and design simple and to be realistic regarding the scope and speed of institutional reform. The project directly benefits 300,000 people living in the rural, low-income area of South Karalpakstan, and improves water quality for the 3.5 million people living in the midstream and downstream portions of the Amu Darya Basin.

Approach: Competitive grants have proved a very promising approach for extension and research, permitting a demand driven and cost-effective mechanism for improving technologies and providing information services. **Box 7** below illustrates how these are working in the Romania Agricultural Support Services project. Similar approaches are being used in countries as diverse as Albania, Turkey, Moldova, and Georgia.

ECA will continue to support promotion of new technologies and use of the competitive grant mechanisms, emphasizing transparency, careful monitoring, and evaluation. This can be complemented by other approaches including distance learning, mass media, and development of web-sites and internet-based systems for information dissemination and exchange, approaches that are well adapted to ECA, with its literate, though poor, rural population and relatively well developed electricity and telephone network. There should be special focus on helping rural enterprises increase productivity, meet EU standards, and implement sustainable land and water management. Information services are needed in all ECA countries.

Geographical focus: Because of its strong public good element, ECA will support improved knowledge and information systems in all countries, which express a demand for and an aim to develop innovative, transparent approaches.

Competitive grants are one mechanism for moving towards demand-driven research and extension services. We are sharing the experiences and improving the approach both through operations within individual countries and through regional knowledge sharing.

***Box 7: Romania Agricultural Support Services Project, FY- 2000
(Project Cost: US\$18 Million)***

Agriculture accounts for 16 percent of Romanian GDP and 35 percent of employment. Romania has nearly 15 million ha of good agricultural land and soils are fertile. Until 1990, most land was managed by large collective or state farms. More than 50 percent of the land has been privatized, and there are now 3.6 million private farmers with average land holdings of only 2.5 ha each, about 50 percent of whom have joined associations or agricultural societies. Many have little managerial or entrepreneurial experience, and they lack support services in information and technology as well as finance. Romania has a strong tradition in agricultural research, but it has focused excessively on basic rather than applied research and on output maximization rather than efficiency. Messages also need to be adapted to the needs of the new, small farmers.

The objectives of the Agricultural Support Services Project are to support increased agricultural productivity and farm incomes through applied research and extension services which respond to farmers' priority problems. One component includes a competitive grant mechanism to award research grants to focus on priority problems for farmers and agro-processors. The scheme is open to universities, NGOs, private industry, and extension services. Criteria have been predetermined and focus on farm management, marketing, efficient input uses, and production and processing efficiency. The project also awards grants for delivery of extension to private and public organizations, based on criteria such as quantifiable impact and sustainability.

Institutional support is provided for the delivery of rapid impact extension programs, including a rural radio program, farm management handbooks, an action plan for agricultural knowledge and information systems, technical assistance, and training. The project includes a monitoring and evaluation system to apply lessons learned to future operations. A key element is stakeholder participation, involving private/public partnerships and responding to farmers' priorities. The project is innovative in that it seeks to clarify the "public good element" in research and extension within transition economies.

Implementation to date has been very successful. Two rounds of grants have been awarded totaling US\$2.5 million and include support for a variety of activities such as, support to farm systems on sloping land, improved grading for grain and oil-seeds, revising herbicide regimes and minimum tillage, and improved cattle farming.

This project has served as the basis for developing the competitive grant approach in other countries. The region is now funding priority research and extension programs through a regional knowledge-sharing program. We are helping clients identify priority programs and develop selection criteria, and we have developed operational guidelines for financial and procurement administration of these programs. Regional workshops have been held in Almaty (2000) and Baku (2001). In 2002, the region is focusing on monitoring and evaluation procedures, and in 2003-4, the focus will be on sustainability.

3.3.5 Agricultural and Livestock Quality and Safety Standards

Context and Lessons Learned: Agricultural and livestock standards have traditionally been controlled by governments in ECA as in most European countries. Enforcement of regulations has varied widely among ECA countries. Meeting EU standards, which go beyond the quality of the "product" to quality of the "process," is essential for EU accession countries. There is, however, a debate about whether the private sector with regulation, or direct government implementation, is more appropriate to ensure that standards are met. There is also a debate as to whether private exporters themselves should

pay for the costs of quality assurance, since they are the principal beneficiaries, or whether the external benefits of compliance, and above all costs of non-compliance, outweigh the private benefits. The recent outbreaks of Mad Cow Disease and Foot and Mouth Disease in Britain vividly illustrate this point. They show how difficult the separation of public and private functions can often be, and that the potential for collusion and even corruption by both private and public sector agencies, exists even in a country with relatively good “governance.” The box below summarizes the complex technical issues involved in meeting international standards.

Box 8: Improving Agriculture Standards

The demands of increasing globalization of the agro-food industries make compliance with key agriculture standards increasingly important to access export markets. The range of standards to be met is increasingly broad and challenging. These include phyto-sanitary standards for plant products, epidemiological standards for animal products, and food safety standards for processed products. They also require considerable knowledge of the various international institutions involved in the setting and enforcement of such standards (for instance, OIE, FAO Codex Alimentarius, and others). In addition, access to modern plant genetic material is associated with membership in UPOV. GMOs (Genetically Modified Organisms) pose an additional challenge.

Approach: There is no “right or wrong” regarding the role of government in this area. The Bank should support international standards, transparent monitoring and enforcement, and private sector investments to comply with these standards, possible with grants if non-compliance would have serious external consequences such as, improper treatment of BSE issues, or nutrient run-off into rivers from poor manure management.

The geographic focus is primarily on EU accession countries and on countries with substantial exports such as, Moldova, Ukraine, Turkey, Uzbekistan, and Poland.

3.4 Off-farm Enterprise Development

This strategy places increasing emphasis on off-farm development in rural space. During the normal development process, agriculture will shed labor and much of this labor can be productively employed in higher value-added activities related to agriculture such as processing or marketing, or can provide services to rural populations for improved well being such as, supplying goods and services for households. There is a synergistic effect between the off-farm and on-farm sectors where improved efficiency of, for example, input distribution or output marketing increases agricultural growth, while agricultural growth will, in turn, drive the development of these complementary activities. A balanced approach to on- and off-farm development is needed with interventions in two general areas:

- agro-processing, marketing, and rural enterprise development and
- rural finance.

Each of these is discussed briefly below.

3.4.1 Agro-Processing, Marketing and Other Rural Enterprise Development

Context and Lessons Learned: ECA countries still face a legacy of a poorly developed rural service economy. Thin private markets for input supply and output marketing, and for agro-processing, are major bottlenecks to growth of the rural economy. During Soviet times, at least in the CIS, state

enterprises provided inputs to farms and processed and marketed their products in an integrated manner. Most of these enterprises have been nominally privatized, but many are technically bankrupt, with outmoded technologies and poor quality products. There is general agreement that the most important steps to encourage sound enterprise development in this area include: a stable macro-economic framework, market liberalization, state-enterprise privatization, de-monopolization, development of a transparent regulatory framework and provision of basic physical infrastructure. However, it has become clear that even all of these steps are not sufficient to achieve success. Effective models to develop a vibrant rural service economy have proved elusive. In many countries, there is not yet a culture of entrepreneurship, (though there are exceptions such as Turkey, Azerbaijan, and Albania), and weak capital markets further hinder development (see below).

Approach: Aside from rural financial services and better rural infrastructure (as discussed below) ECA will continue to press for an improved business environment, especially in further reform of policies, grades and standards, streamlined licensing, intellectual property rights and a fair tax regime. Projects will also support private and public sector capacity building in the area of customs and inspection services, trade promotion and dispute resolution, as well as creation of farmer/commodity associations. Support is also necessary for anti-corruption efforts including reduction of extortion during transport, facilitation of linkages between buyers and growers, and support of partnerships with organizations such as IFC and EBRD, which can lend directly to the private sector. This is an area where there is much to learn from the experience in Western Europe and other regions such as Latin America, and is a priority for operationally oriented sector work.

Geographic coverage: ECA needs to support an improved institutional and policy environment for marketing and development of a rural service economy particularly in Central Asia and the Caucasus, but also in Russia, Ukraine, the Balkans, and SE Europe.

3.4.2 *Rural Finance*

Context and lessons learned: Before the transition, most ECA countries had a single, state-owned agricultural bank that extended credit to collective farms based on quantitative targets for financing needs rather than an appraisal of commercial business plans and repayment capacity, and without the use of collateral. Much of this lending was unprofitable, and tolerance of arrears by state banks was a large part of the soft budget constraint faced by the farms. In the face of these poorly performing portfolios, as market reforms were introduced, most of these state-owned agricultural banks have collapsed. Commercial banking in rural areas has been slow to develop, and capital flows to new private farms and other rural enterprises are extremely limited. State run savings banks did exist prior to the transition, with branches in many rural localities. The majority of funds in these institutions is channeled to the industrial and trade sectors; however, most of these facilities continue to operate, providing rural populations with opportunities to use financial instruments for saving. Other financial instruments, such as hedging, futures contracts, and insurance are poorly developed across the region, although some leasing operations have begun to operate.

Real interest rates are high because of incomplete stabilization, and banking institutions are inexperienced with commercial lending in general and rural lending in particular. Small and rural borrowers have particular characteristics, which make them less attractive for commercial lending; costs are high due to the small size of individual transactions, and borrowers are geographically dispersed. There are also special features of agriculture, which raise the risks of lending to the sector, namely weather variability, volatility of international commodity prices, and lack of fixed assets that can be used as collateral. These problems are further exacerbated by the variability in supply of and demand for funds according to agricultural seasons. These challenges to rural lending are not unique to ECA and no country in the world has a completely self-sustaining agricultural finance system.

Many of the reasons that functioning banks do not lend to the rural sector are due to broader problems in macro-economic and sector policy and in the regulatory environment, and frequently lending does not take place simply because the underlying activities are not adequately profitable. As a result, part of our strategy to improve rural financial systems lies outside of finance, with more emphasis on interventions to increase productivity and value added of rural activities.

Problems in lending to rural areas are compounded in ECA by some specific features of the region. The old agricultural banks, which dominated rural lending in the past are gone, but this legacy has left existing commercial banks that have no branches or expertise in appraising agricultural activities. They do not understand agriculture as a business, nor do they have any knowledge of collateral markets, should they need to foreclose on agricultural assets. Land titling and title registration are just beginning and land markets are thin. As a result, mortgaging of rural land remains extremely limited in most countries. In addition, the legal and regulatory framework for using moveable property for secured transactions is not yet adequate. The clientele of brand new farms has no credit history and most of them do not yet understand issues of farm finance, keeping of farm accounts, and preparation of business plans.

Approach: Encouraging lending in the face of these high costs and high risks has proved ineffective in the past. A financial systems approach to developing financial services will help develop the environment and the institutions that will allow sustainable intermediation to take place. The focus should be on interventions that can help reduce the costs and risks of lending.

One way to do this is to substitute social capital, that is, mutual guarantees, for physical collateral using savings and credit associations and credit unions. These institutions capitalize on the fact that local people know one another, can screen eligible borrowers and projects, and provide mutual guarantees. Community-based credit schemes have worked well in countries such as Albania and Moldova.

Development of the legal framework and systems to secure lending based on moveable property is another key way to reduce costs and risks because most rural borrowers do not possess fixed assets and cannot yet mortgage the land they do own. Nonetheless, most of them possess the equipment, machinery, livestock, inventories, accounts receivable and warehouse receipts that are used in most developed countries as a basis for secured lending. Development of procedures that allow for rapid foreclosure on security interests are also be supported. There are projects in Kazakhstan and Romania in these areas.

Mobile branches and retail windows in shops and post offices can help reach rural clients at low cost. These have been used effectively in Latvia, and this approach has potential for use in many other countries (**See Box 10 on Latvia**).

ECA will provide technical assistance to banks to teach them how to undertake commercial appraisal of typical rural and agricultural activities and to understand the viability of expanding a low-cost branch network, as well as technical assistance to borrowers to develop business plans for viable projects. There are successful projects with these aims in Latvia, Kazakhstan, Georgia, and the Kyrgyz Republic, and they can be successfully replicated elsewhere.

Micro-credit programs can build on social capital and community organizations even when there are widespread governance problems and where formal financial systems are not functioning, and can stimulate broad-based rural development.

***Box 9: Albania - Micro-credit Project, FY-1999
(Project Costs: US\$23 Million)***

Albania, a mountainous country with 3.3 million people, is the poorest country of Europe. After 1990-91, farm-land was rapidly privatized into 400,000 family farms lacking inputs and basic tools. Poverty is pervasive especially in the mountainous areas where farm size averages only 0.7 ha. The Bank has supported rural poverty alleviation programs by establishing a Rural Development Fund (RDF), which administered micro-credit schemes and supported community based infrastructure and employment generation. Despite widespread governance problems in the country, and a civil crisis following the collapse of a fraudulent pyramid credit scheme, the micro-credit programs, based on community governance, have proved quite successful. RDF was eventually transformed into the larger scale Albanian Development Fund (ADF), administering both urban and rural credit as well as public works. Later, the credit and works were separated with ADF maintaining responsibility for rural community works, and two organizations taking over micro-credit operations: Besa Foundation for urban credit and the Rural Finance Federation (RFF) for rural credit.

The Micro-credit Project aims to stimulate investment and savings and to increase economic activity in rural and urban areas. It supports establishment a self-sustaining savings and credit network and federation in rural areas, building on the Village Credit Funds supported by previous projects. Membership in Savings and Credit Associations is voluntary, and the project provides training and lines of credit as well as support for the regulatory and supervisory framework and institutional development. Rural credit operations cover 11 districts with 340 SCAs and 19,000 members. There are also urban micro-credit facilities, now operating in 10 towns, with an additional 17,000 credit clients. Repayment rates have remained remarkably high throughout the history of Bank support (99 percent or more).

The system does benefit from some subsidy, although the program supports gradual reduction and eventual phase-out of Government and donor support over time.

The project is co-financed with the Government of Switzerland, the Open Society Institute, and other donors. It represents an interesting partnership among the Albanian authorities, the local communities who are responsible for the Savings and Credit Associations, and non-government organizations for the urban component. It illustrates that, even in a very difficult external environment, locally based initiatives can be successful.

Bank support for on-lending arrangement will be at market rates. Subsidies are not excluded but will be used in a judicious manner. They should be time bound, transparent, and targeted at specific objectives or populations and not directly on the cost of capital. For example, lump sum subsidies can bring newly created clients with no credit history into the system and teach them about the importance of repayment as has been done in Latvia. These subsidies are delivered upon on-time repayment of the final loan installment. We have also used subsidies for institutional development, both in commercial banks and for savings and credit institutions. Lending in foreign exchange to small borrowers without foreign exchange earnings should not be encouraged, and only on lending to private borrowers should be supported.

Innovative rural finance programs have filled financial intermediary gaps faced by rural population while advancing land reform, developing land markets and a collateral system, and promoting small scale rural entrepreneurs based on local initiatives.

Box 10: Latvia -Agricultural Development Project, FY-1994,(Project Cost: US\$25.0 Million); and Rural Development Project, FY-1998, (Project Cost: US\$10.5 Million)

These two projects have supported the newly emerging private rural economy in Latvia. They provided rural finance credit lines, supported land reform, encouraged private business development and related support services such as marketing, agricultural extension, and project management.

When ADP was launched, there were no commercial banks in Latvia with interest in serving small scale private farmers. The Agricultural Finance Company (AFC) was set up with a flying squad of mobile credit officers who took financial services to the farmers rather than waiting for them to come to a fixed and often far away site for such services. The concept of “a bank coming to the clients” helped overcome the transportation problem frequently faced by farmers. During four years of implementation, with only 42 staff, AFC approved total of US\$43 million for 2,860 sub-loans including reflows, and the repayment rates remain high at around 93 percent. The loans made at market interest rates offered both in LAT and US\$. AFC was subsequently merged with a commercial bank in Latvia and continues to serve the rural population today.

RDP, approved in 1998, supports a wider range of rural entrepreneurs and was aimed at helping the Government to build its rural policy making capacity for EU membership. A particular innovation was the “Special Credit-line” with government subsidy of a matching grant for small-scale farmers and rural entrepreneurs borrowing for the first time. First time borrowers received a small portion of the loan in grant form, once they had repaid their loan amount in full. To date, some 1,300 of these small loans, each for a maximum of US\$4,000 equivalent, have been made. The bulk went to a wide range of rural entrepreneurs, including rural tourism, hairdressers, tailors, doctors, and other rural service providers with only 20 percent going to farmers. RDP also successfully introduced participatory approaches to rural development by creating Local Action Groups (LAGs). Two leaders of LAGs in Latvia received a United Nations Award of Excellence for community-led development. Repayment performance continues to be good, at around 98 percent.

These two projects have helped establish a sustainable rural financial system based on commercial lending terms and conditions. Not only did they enable borrowers to establish the necessary discipline and understanding of banking practices, but they also helped make the broader reform process possible by supporting land titling which gave farmers and small-scale entrepreneurs the collateral necessary to set against their borrowing.

There is a reasonable record of success in ECA countries, using a number of approaches adapted to countries in different stages of reform and with different models of social organization. Where social cohesion is strong, ECA will encourage establishment of savings and credit associations using mutual guarantees and will ensure that they are adequately supervised. The boxes for Albania and Romania, illustrate two models for rural finance. The Albania example builds on social collateral in its community credit scheme, while the Romania example develops the broad outreach of a number of credit instruments to the rural population.

Geographic priorities for rural finance activity include Bulgaria, Romania and Moldova, the Caucasus, Ukraine, and Russia.

3.5 Social and Physical Infrastructure

Rural physical infrastructure includes roads, telecommunications and energy, water supply and sanitation. Social infrastructure includes health care, pensions and social safety nets, and education and labor markets. All of these are critical factors for assuring economic, social, and physical well being of rural residents. The key challenge in these areas is how to assure adequate provision of each, when the unit costs of supply in rural areas are greater than in urban areas and when income levels are lower than in urban areas. The tension between what is needed and what is affordable exists everywhere, but is especially acute in ECA where (a) the weather is very cold and housing and energy needs are higher than in many other places and (b) relatively acceptable levels of both physical and social infrastructure were provided during Soviet times, without regard to cost. Rural residents, not surprisingly, find it difficult to adjust to a reduction in their standards of living that could be long term.

3.5.1 Roads

Context and lessons learned: In general road infrastructure in ECA countries is adequate, though less so in mountainous areas. In Romania 67 percent of district roads are paved, in Albania 43 percent and in Kazakhstan 43 percent of oblast roads are paved. Most field to village roads are not engineered or graveled and are thus, impassable after rain. Funds for regional and local road maintenance are grossly inadequate covering 5-10 percent of annual requirements, and road conditions everywhere are generally deteriorating. In South Kazakhstan 30 percent of oblast roads, and in Romania 80 percent of district roads, are in poor condition. There is road access by the rural population in most FSU countries since people tend to be concentrated in large villages established during the collectivization drive and situated along paved roads.

Transport services have mostly been privatized, but there are law and order difficulties with bribes extracted at road-blocks. This greatly increases rural transport costs, especially in Central Asia and Moldova. There are also difficulties with border crossings between several countries.

In countries where land has been privatized and the basic reform agenda is quite well advanced, support for a range of financing instruments to facilitate private sector development can advance a broad-based development of the rural economy.

**Box 11: Romania Rural Finance Project, FY-200 2, APL (Adaptable Program Loan)
(Total Cost US\$276 Million, First Phase US\$148 Million)**

Romania has a population of 23 million and per capita GDP of US\$1360. Forty percent of the population and two-thirds of the poor live in rural areas. Agriculture accounts for 16 percent of GDP and most farm-land has been privatized. Romania is well-endowed with productive agricultural and forest-land and is a net exporter of farm and forest products. There is much scope for development of a vibrant and diversified rural economy. It is estimated that the rural sector accounts for about half of all employment in Romania.

The proposed project seeks to promote economic growth and reduce poverty in rural Romania through the provision of financial services. The project will assist in:

- (a) Increasing the flow of investment capital to the rural economy;
- (b) Supporting the private sector in the rural economy by: (i) improving access by rural households to financial services and (ii) helping regulated private financial intermediaries to augment their presence in rural areas;
- (c) Facilitating accession to the European Union (EU) by assisting the rural economy to absorb the grants that will be allocated under the EU Special Accession Program for Agriculture and Rural Development (SAPARD) by making available counterpart funding for the private investments that will be financed by this program; and
- (d) Alleviating rural poverty by financing farm and off-farm investments for poor segments of the rural population which currently have no access to credit.

Specifically the project supports:

- (a) Rural credit and leasing facilities with: (i) sub-loans through private intermediary banks for the full range of rural productive activities (farm and non-farm, including agriculture, services and industry); (ii) micro-loans through participating NGOs or private service providers to rural entrepreneurs; and (iii) leasing of depreciable capital assets (machinery, tools, vehicles, equipment) by private intermediary banks and leasing companies to final beneficiaries;
- (b) Development of low-cost rural retail banking and micro-finance operations by providing low-cost technologies for retail financial services; establishment of a network of pilot retail banks by participating private banks and service providers; and training and technical assistance to these organizations; and
- (c) Capacity building for rural financial market development in areas such as development of warehouse receipts, improved accounting systems, credit rating, risk reduction, private insurance and public awareness.

This project has also helped Government to achieve a major set of policy reforms in the sector, eliminating subsidized credit to rural areas as part of the loan.

Approach: Sustainable improvements in rural roads depend on strong local government institutions and fiscal decentralization (spending and revenue authority) at the district and oblast (not commune) level. Better roads and transport services are seen as high priority by local populations as they can have positive impacts not only on rural economic growth but also on health and education. There should be a higher priority to these investments than in the past. A rural development project under implementation in Poland (*See Box 12*) addresses social and physical infrastructure and other constraints

to the rural economy. A similar project is starting for Romania, and focuses on building local government institutions as well as improving road and water supply infrastructure.

This operation supports broad-based development of the rural economy through strengthening local government institutions, improving local infrastructure, telecommunications, and schools, and helping rural people to find jobs. It also helps Poland prepare for EU accession.

***Box 12: Poland Rural Development Project, FY 2000
(Project Cost US\$301 Million)***

Poland, with 39 million people, per capita GDP of US\$3,900 and a land area of 304,000 km², has a large agricultural sector. It represents only 6 percent of GDP but there is a large agro-processing sector with substantial exports. Despite healthy economic growth, rural poverty is still widespread, with rural areas accounting for 36 percent of Poland's population but over 60 percent of its poor. Farmland remained privately owned during the communist period and small family-run farms of 6-12 ha predominate. Unemployment in Poland remains a key issue and the agricultural sector is shedding labor as the farming system becomes more competitive in preparation for EU access. Rural unemployment among young people is especially problematic, and even the young are immobile in Poland and lack marketable skills. The fastest growth in employment since the early 1990s has been in small and medium enterprises in urban areas. In rural areas, infrastructure is poor and local administrative capacity limited.

The objectives of the project are to increase off-farm rural employment in value adding activities, to contribute to decentralization, and to improve Poland's capacity to absorb EU pre-accession and structural funds by supporting:

- Micro-credit schemes for small local enterprises;
- Labor redeployment, including training and small business assistance;
- Rural education through upgrading school facilities, equipment and teaching;
- Strengthening of local and regional administrations; and
- Rural infrastructure upgrading in response to local demand, including water and sewerage, solid waste management, rural roads and telecommunications.

Progress as of early 2002 has been good. Following a decentralized selection process, nearly 400 rural infrastructure projects worth US\$70 million, and 53 school rehabilitation and consolidation contracts worth US\$9 million had been let. Under the labor redeployment component, there were an initial 45 contracts with local service providers and there was progress with the local and regional administration component. Contracts with five micro-credit service providers were signed early in 2002, which will lead to the first micro lending in spring of 2002. This progress has taken place in a context of broad-ranging changes at central government level, and illustrates the advantages of focusing on local administrations, and of building on local commitment towards achieving development goals.

The project is innovative in that it is aimed at broad-based rural economic development and is not targeted at agriculture. In Western Europe, the great majority of the rural population does not earn their living from farming, and even agricultural household heads are generally part-time farmers, with part of their income from off farm activities. The project is helping Poland towards a similar adjustment and helping position Poland to use EU rural development program funding effectively. Improved rural infrastructure and services generally improve the environment for rural investment, and an operation focusing on rural infrastructure is under preparation for Romania.

3.5.2 *Telecommunications*

Basic telecommunications are less developed in rural than in urban areas. In Kyrgyz Republic 72 percent of telephone lines are installed in urban areas while 66 percent of the population is rural. The share of the rural population with access to telecommunications remains low (15 percent of the rural population in Russia, 11 percent in Kazakhstan and 7.4 percent in Kyrgyz Republic has access to telephones). Three thousand rural communities in Romania have no installed telephone. Increased use of the internet for information dissemination including prices, markets, and distance learning makes telecommunications of increasing importance for the 21st century.

ECA does not have a strategy for rural telecommunications in ECA at present, and this area has only been addressed within the context of knowledge economy questions if at all. It may require a different approach (as has been developed for rural finance) adapted to the special needs of rural areas. The countries of focus could logically be those with low rural populations densities in large physical spaces which have the most need to rely on telecommunications, such as Russia and Kazakhstan.

3.5.3 *Energy*

Context: Adequate and affordable energy supply is a high priority for ECA residents, since heat is essential during the long cold winters that prevail over much of the region. In most ECA countries, the supply response to this situation was an extremely widespread provision of conventional energy sources, especially electricity.

Electricity use during Soviet times was heavily subsidized and few subscribers were disconnected for lack of repayment. As a result, electricity has been used as a fuel for activities where it is not necessarily the least cost alternative and induced demand is beyond economically justifiable levels. This is particularly true in the case of heating.

While access to electricity is widespread in ECA, the areas that are not served are, for the most part, rural areas. Most of the electricity grids in ECA countries were developed for medium and high voltage supply to industries, and the low voltage distribution networks, particularly in rural areas, are under significant strain with low levels of efficiency. This leads to poor reliability of service, and outages are common. In addition, weak capacity hinders expansion of existing systems to areas that are not yet served.

Questions about financing for energy use pose the most vexing problem for resolving rural energy problems. Electricity tariffs generally do not reflect the high cost of supply to rural communities. While they generally do not cover costs for urban areas either, the unit subsidy is higher for rural areas due to the lower density of populations and the higher supply costs. This results in high fiscal costs for governments or quasi-fiscal deficits through losses of the power companies. Gas networks were extended in many countries to rural areas but are no longer viable and in many cases, supply has been cut off.

Despite the large explicit and implicit subsidies, energy expenses constitute a very large proportion of total household costs in ECA countries because of the long and cold winters. For example, a recent assessment in the Federal Republic of Yugoslavia indicates that electric space heating costs exceed total household income for the lowest decile of income levels even at current highly subsidized prices. Increasing prices for commercial sources of energy to full cost recovery would result in heating costs that would exceed half of household income for the lowest four deciles of income levels.

The rural poor address the problems of non-affordability, poor access, and poor reliability by resorting to non-commercial sources of energy supply, particularly fuel wood and biomass. This, in turn

causes deforestation, flooding, erosion, and, in some cases, increased desertification, as well as negative health effects due to indoor air pollution. **Box 13** illustrates the complex cross-sectoral issues associated with heating and energy in the region.

The transition and reduction of energy subsidies has had complex inter-sectoral impacts as households, and governments have sought alternative solutions to meet essential requirements for winter heating. In this area economically, socially, and environmentally sustainable solutions are only beginning to be developed.

Box 13: Cross-sectoral Impacts of Energy Price Rises

Armenia

Fuel wood accounts for about 50 percent of the energy consumption of the rural population in Armenia, compared with 20 percent for the urban population. Armenia is “forest poor,” with forests accounting for only 12 percent of land use, less than 0.1 ha per capita. Following an increase in electricity prices by 47 percent in 1999, electricity consumption among the poor fell by 50 percent, and 60 percent of households stated that they switched to fuel wood. Illegal felling, primarily for fuel wood, constitutes about 25 percent of total felling, and large areas of forest near population centers have been cut down. Deforestation increases the risk of soil erosion and natural resource depletion. It is estimated that since 1990 Armenia has lost about 10 percent of its forested area. Dung is also increasingly being used for heating rather than as fertilizer, leading to further soil impoverishment.

Sources: “Utility Pricing and the Poor: lessons from Armenia” J. Lampetti et al 2000
Kyrgyz Republic and Kazakhstan

Central Asia

The Syr Darya River which rises in the Kyrgyz Republic, provides irrigation water for downstream countries. A complex of regulation structures provides storage and electricity generating capacity in the Kyrgyz Republic. During Soviet times, the river was regulated to maximize water delivery for irrigation, with water released in the summer and stored in the winter. The river downstream was also adapted and sized for this regime. In exchange, the Kyrgyz Republic was supplied with fossil fuels at subsidized prices for thermal power generation in the winter. With the breakup of the FSU and the transition to market prices, the Kyrgyz Republic was no longer able to afford thermal energy and began to release water in the winter to generate energy. The water cannot be used during the cold winter weather for irrigation and is wasted into a large depression in the desert. There is subsequently insufficient water in the reservoirs for summer release, and a shortage of irrigation water for Kazakhstan. In an attempt to compensate for this, the Kyrgyz Republic has increased releases from its major reservoir, drawing down storage, and making both countries vulnerable to very severe water shortages should there be a major drought.

Sources: Aral Sea Water and Environment Project: mid term review July 2001.

The combination of low incomes on the part of rural residents relative to the cost of supplying various energy forms, as well as the heavy subsidy on electricity from the grid, dampens the interest of commercial suppliers in providing alternative forms of energy to the rural market. In fact, new investments are likely to be viable only if the benefits of poverty reduction or reduced deforestation are included. This will require either investment by the public sector or a careful structuring of incentives, including tariff adjustments and/or subsidies to induce private investment.

Approach: To date, the Bank has focused on the energy needs of the urban areas in ECA countries. An analysis of the specific heating needs of the rural poor is required, cast in the context of overall energy requirements for rural areas, and such a study will be proposed by ECSSD/ECSIE to the Region for financing in FY03/04. Based on this analysis, a more detailed rural strategy will be elaborated.

The approach should have a short-term focus on maintaining the existing delivery systems while over the longer term, a broader rationalization of alternative sources of supply including inter-fuel substitution would be pursued. In the **short term**, there is a need to address the rural network efficiency and reliability issues, with focused investments to strengthen the network. The investments required are those to reduce losses and improve reliability in the transmission and distribution networks where there are clear bottlenecks. These investments should be based on a reasonable economic return for loss reduction and willingness to pay for reliability. In parallel, social subsidy programs, financed by grant funds, should be put in place to enable the rural consumers to receive a minimum amount of electricity or other heating supply source. These subsidies should be directly aimed at financing lifeline energy costs and should be paid directly to the service provider on behalf of the rural consumers. Where it is administratively efficient, targeted subsidies to the poor should be delivered directly to poor households. Institutional strengthening is also required to help the utilities to improve their commercial and technical management.

Over the **longer term but starting as soon as possible**, programs to rationalize consumption should be put in place to prevent wasteful or inefficient energy consumption. This requires a combination of improvements to the incentive scheme such as tariff adjustments, metering, billing, and collections procedures as well as support for investments. Alternative means of energy delivery, such as small hydro, solar, wind, fuel cells, fuelwood from sustainably managed harvesting regimes and, where feasible, LPG, could be developed, depending on the resource endowments of the particular rural area. These alternative means of energy delivery would be amenable to local ownership, based on community driven approaches.

In **EU accession candidate countries**, rural energy development can get a strong boost from new EU requirements. For Tier 1 countries, there is an EU indicative target to double the share of renewable energy sources (e.g., solar, wind, biomass) in total energy consumption by 2010. To meet this directive, system operators will be allowed to give priority to generating facilities that use renewable energy sources or rural waste rather than to least cost units. In some ECA countries, increased policy attention to renewables (a predominantly rural-based energy source) is clearly noticeable. ECA will learn from these experiences and translate them into viable projects and programs.

3.5.4 *Water and Sanitation*

Context and lessons learned: Rural areas have significantly lower levels of service than urban. During Soviet times, most villages had access to piped water from standpipes. This system, maintained by the previous collective farm administration, has now deteriorated. In Central and Southeastern Europe, individual households and municipalities have generally been responsible for rural water and sanitation. Poor and deteriorating water quality (with high levels of nitrates and poor bacteriological quality) has had negative health impacts in a number of countries, including Romania, Moldova and Belarus, while in Uzbekistan, the main issue has been increasingly saline groundwater, especially in Karalpakstan in the Amu Darya Delta leading into the Aral Sea. Almost all countries have decentralized the responsibility for water and sanitation provision to local governments. This is having a positive impact in the EU accession countries; Poland, Hungary, Czech Republic, Slovenia, Estonia, and Slovakia. In the NIS countries, however, decentralization has occurred without guidance, causing a serious gap in organizational capacity, and without the financial resources needed for maintenance of rural and small town water systems.

Sector professionals in the Region are grounded in a system of standards and norms with little flexibility in their application. This leads to over-designed systems when compared to available resources. Often the norms for rural areas are the same as those for urban areas; and new investments take precedence over maintenance and operational efficiency. As rural water systems relied almost completely on government subsidies prior to the transition, the sector does not have the kind of

commercial orientation that should drive cost effectiveness and efficiency. Availability and reliability of information have improved considerably in the EU accession countries but not in other countries.

Approach: Priority should be placed on establishing an institutional framework that clearly assigns responsibilities between national and local governments and enable community-based organizations to manage and operate water supply and sanitation facilities. Restructured central rural water supply and sanitation (WSS) institutions will be encouraged to have a policy making and facilitating role. The region will push to have rural water supply service planned and provided on a financially sustainable basis, with decentralized tariff setting authority, a level of service for which communities can pay, and targeted subsidies to allow affordable access to poor and vulnerable households. ECA will also support commercial practices and involvement of a competitive private sector in provision of equipment, technical and construction services, and management and operational know how. There will be continued support for improved rural water and sanitation investments, focusing on approaches, which emphasize community participation and local responsibility for operation and maintenance. Rural water schemes, which are managed centrally, are unlikely to be sustainable.

ECA has financed improved rural water and sanitation mostly as components of other projects, in particular Social Funds and Rural Development Projects. One of these, a rural infrastructure project for Tajikistan, is illustrated in the **box 14** below. Experience with stand-alone rural water supply projects has been limited to Uzbekistan and Kyrgyz Republic (**See Box 15**).

Geographic priorities. Emphasis will be put on countries where poor quality water can cause health damage such as in Central Asia and parts of SE Europe and the Caucasus, where local communities indicate that improved water supply is a priority, and where they are, with assistance in the early stages, able and willing to take over responsibility for maintenance.

Context and lessons learned: The quality of health care in ECA countries before 1990 compared well with that of countries of similar per capita GDP. Services were provided free of charge, and basic health indicators were good. Health infrastructure was not always cost-effective, with too many small facilities and too many doctors and nurses. Health care has deteriorated in most ECA countries as funding for health services has declined, and declining real wages for health care providers has led them to require “under the table” charges to provide service. This has particularly affected poor rural people who cannot afford these payments. A survey in the Kyrgyz Republic revealed that half of rural health care visits required the sale of a product or animal to cover the fee. It is particularly difficult to retain trained health professionals in rural areas. Health conditions have worsened in both rural and urban areas since the transition, with sharp increases in male mortality and stress-related diseases such as alcoholism.

In Soviet times, pension systems for farmers often had the characteristics of social assistance. Most of these systems, however, are now gone. In addition, many former collective farm workers were never part of the formal pension system. For those rural residents who do benefit from existing pension systems, their low cash wages and low contributions have led to very low pensions. Consequently, formal cash support systems for elderly rural residents remain extremely weak in most countries. On the other hand, many elderly received land as a result of the collective farm privatization or restitution programs, and this land has provided a social safety net and minimum income. Garden plots are also especially important for the elderly, who may use them to provide for both themselves and their families.

Improved rural water supply can be addressed through a range of project interventions, including self-standing projects, Social Funds and as components of irrigation or other rural infrastructure projects. These interventions should be self-sustaining financially and be managed by local communities.

Box 14: Tajikistan Rural Infrastructure Rehabilitation Project, FY- 2000
(Project Cost: US\$20 Million)

Tajikistan is a small, mountainous country in Central Asia, one of the poorest in ECA, with GDP per capita of US\$370 and a population of 6.2 million of whom 73 percent live in rural areas. Tajikistan has a high level of poverty partly because it has limited arable land and is landslide-prone and resource-short, but also because of political instability. Eighty percent of the poor are rural.

Poor availability of good-quality drinking water in rural areas of Tajikistan is one of the major problems affecting the well being of the rural population. About 30 percent get water from centralized pipes. Others drink from water channels and irrigation canals (28 percent), wells and springs (22 percent) and other sources, including rivers and rain-water. The low quality of water from these sources often leads to diseases, including typhoid, dysentery, typhus, and malaria. Improved irrigation and improved irrigation water supply are inter-connected in Tajikistan since the source of much of the drinking water is from groundwater resulting from seepage from irrigation channels. Thus, an unreliable irrigation water supply affects the supply of drinking water.

The Rural Infrastructure Rehabilitation Project, principally an irrigation rehabilitation project, has undertaken rural drinking water supply as a sub-component in certain communities where almost all members are willing to contribute either in cash or in kind to ensure a reliable supply of drinking water. Direct project costs for the rural drinking water component are estimated at about US\$2 million. In these selected areas, the project aims to rehabilitate selected water supply schemes. It will support construction of tube wells with submersible pumps, rehabilitation of a pump unit in an existing water-supply pump station, construction of a new pump station, and laying of water delivery pipelines. Community members will take an active role in design and construction of the water supply works. Later, operation and maintenance of the works will be transferred to the village community. Over time, ownership of these facilities is to be transferred to the village communities.

3.5.5 *Health Care, Pensions, Social Assistance and Social Safety Nets*

Approach: ECA strategy is to emphasize primary health care, to increase efficiency in rural health systems through consolidation and streamlining, and to develop low cost alternative delivery systems. The emphasis will be on preventive health care through public awareness campaigns on such issues as alcoholism, smoking, and will concentrate most health treatment in relatively larger facilities, upgrading equipment and training. Smaller facilities should be closed and replaced with low cost innovations for outreach of basic care such as the use of radio programs and mobile nurses for preventive care.

Geographic priorities include Russia, Ukraine, Central Asia, Turkey, and Romania.

Self-standing rural water supply projects can improve sustainable service delivery and community management at local level, while developing national and regional institutions, which will build capacity nation-wide.

***Box 15: Kyrgyz Rural Water and Sanitation Project, FY-2002
(Project Cost: US\$25 Million)***

The Kyrgyz Republic has a population of 4.7 million, of whom 66 percent live in rural areas. Eighty percent of the poor are rural. The Kyrgyz Republic is mountainous with few natural resources, and despite a good record with macro-economic reform, incomes have fallen sharply with the collapse of regional trade and removal of subsidies. Many infrastructure service levels are no longer sustainable, and there are increasing difficulties with operation and maintenance. Fewer than half of the country's 1750 village water supply systems are functional, with the proportion falling to only 25 percent in the two southern regions of Osh and Jalalabad.

The project aims to improve water supply and sanitation for the rural populations of three regions, with local communities taking responsibility for management and maintenance of schemes, supported by regional rural water supply agencies. It supports: (a) demand-based sub-project preparation using participatory rural appraisal techniques; (b) creation of community water user associations; (c) system rehabilitation and construction; (d) rural hygiene and sanitation promotion; (e) capacity building in systems maintenance and operation; and (f) project management and oversight. Tariffs and service levels, which are affordable and agreed to by local communities, are key to project success.

3.5.6 Education and Labor Markets

Context and lessons learned: Rural populations are almost universally literate in ECA except in Turkey. There are few gender differences in educational level except in Turkey, although even there, rural girls' primary enrollment increased from 76 percent in 1996 to 91 percent in 2000. Overall in ECA, the quality of education in rural areas is worse than that in urban areas, with particular difficulties in finding and retaining good teachers and in obtaining adequate supplies. School enrollment has declined in several countries (Albania, Moldova) since the transition as families cannot afford to pay fees. Costs per student are higher than in urban areas, because class sizes are smaller, and, although the quality of basic education is quite high, it is still not adapted to the needs of a market economy. The needs of rural school children have been neglected since the transition, and many facilities have deteriorated.

Technical training tends to be highly specialized and inflexible and, until the early 1990s, there was little focus on finance, accounting, or business management. Rural populations have little experience in entrepreneurial activities except in Turkey. This is partly because the rural service economy is poorly developed, and there are fewer job opportunities outside farming than in Western Europe, where most farming is part time and the great majority of the rural population is employed outside agriculture. The box below on education on rural education in Albania illustrates some of the choices that policy-makers face.

Investing in better education in rural areas needs to be seen within the context of likely broader social and demographic change; there are difficult balances between equity, cost-effectiveness, and opportunity in designing appropriate programs.

Box16: Sector Work Findings on Albania's Rural Education, FY- 2000

After the basic education grades, Albanian enrollment rates are significantly lower for rural than for urban areas. Poverty is concentrated in rural areas, and family poverty depresses the demand for education. The supply and quality of educational services are also worse in rural areas, factors that further reduce demand. Rural populations are migrating to Albania's cities and peri-urban areas. Thus, schools in the cities and peri-urban areas have to deal with the effects of rural and urban differences in families' demand for education and the poorer quality of preparation that rural students bring with them.

Children from poor families, rural families, and probably families living in peri-urban areas, have lower enrollment rates than children of non-poor families and urban families. Thirty five percent of those Albanian students aged 10-14 who had left school, did so for reasons related to inadequate family income. Another 20 percent left because of perceived low educational quality. Enrollment rates at the upper secondary level have fallen the most dramatically, although this drop is due exclusively to a decline in vocational and technical enrollment, as the rates for academic upper secondary education have actually increased. This reflects both a sharp reduction in supply of vocational education services and a reduction in demand due to falling returns to such training.

The test for educational quality is how students perform against appropriately set standards. However, Albania lacks such standards, and there have been no assessments of student learning relative to standards. Instead, inputs to education, such as the curriculum, textbooks, and teachers have to be used for assessments. These reveal a grave picture, especially for rural areas. If the quality of educational inputs affects the quality of outcomes, the current quality does (*not?*) meet even the bare minimum standards. Educational inequities are primarily found when comparing urban and rural locations. The poor are concentrated in rural areas, but even the non-poor in rural areas have lower quality and fewer educational services than their urban counterparts.

An issue for Albania's Government is its rural policy. Internal migration from rural to urban and peri-urban areas and immigration to other countries is altering the viability of whole villages, including their schools. Does Government want to slow the flow of migrants from rural areas into peri-urban and urban areas? Does it want to ensure that families that do migrate to the cities are better able to function in the urban economy and urban institutions, such as schools? The education sector needs to address factors which influence rural-urban differences in educational access and quality. Improving roads so that small villages that cannot attract qualified teachers can consolidate their small schools into a fewer larger schools with better teachers may be as important as investing directly in improving education quality.

Source: Sue E. Berryman. Albania's Education Sector: Problems and Promise. Human Development Sector Unit, World Bank. May 2000.

The ECA approach is to support consolidation of schools and severance pay for teachers where necessary. Priority will be put on rehabilitating school infrastructure, providing heating and water, and teachers' housing, and ensuring adequate school bus services for those schools that remain. We will support central financing but local management of education systems. We will increase the emphasis on the special needs of education in rural areas to prevent further deterioration.

Geographic priorities: Rural education needs are particularly high in Tajikistan and the Kyrgyz Republic.

3.6 Land, Water, and Forest Management

This section covers the management of the non-mineral resources of land and water, and the plant and animal life dependent on them.

3.6.1 Land

Context: Land availability and quality vary widely throughout the region. Land is abundant but soil fertility is average or poor in the north and west, soils are prone to waterlogging, and growing seasons are short. Land is abundant and fertile in the central plains from Hungary through Romania, Moldova, Ukraine, Southern Russia, and Northern Kazakhstan. The main issue concerns maintenance of soil fertility in a context of soil compaction from use of heavy machinery, soil erosion, and soil depletion from declining input use. This sub-region, together with parts of the Southern Cone of Latin America, has the potential to expand productivity and output significantly over the next 20 years. Agricultural production from the region could help to feed the world's growing population and provide important foreign exchange revenues to producing countries.

Vast areas of Kazakhstan have been developed for arable farming when they could more sustainably be managed as range lands. A pilot project is under preparation to demonstrate benefits from carbon sequestration in rangelands. Improved range management has proved especially difficult in ECA; before 1990, pastures were managed according to technical criteria for carrying capacity, but the central control structures have broken down and have not been replaced by community-based approaches. Sustainable range and pasture management is important in Turkey, the Caucasus, the Balkans, and Central Asia, where mountainous landscapes are also more erosion-prone.

Much of Central Asian farming is dependent on irrigation. Soils naturally have a high level of salts which are brought out by irrigation; water and drainage management are therefore key to maintaining fertility. Poor land, livestock, and manure management, especially in Central Europe and in the Black Sea watershed, has contributed to excessive nutrient runoff into rivers and to deterioration in water quality.

The region contains unique ecosystems of global significance. Parts of the region, especially the coastlines and mountains, are of outstanding natural beauty, and tourism revenues can potentially contribute more to the rural economy than agricultural production. Careful ecosystem management and land use planning, with local participation, are essential if these areas are to be sustainably managed.

Land restitution has, in some cases, led to poorer land management practices for example, in Romania, because of land fragmentation, and because of lack of experience of new private farmers. Up to the present with some exceptions, ECA countries have focused first on land reform, without providing support for the technical aspects of improved land management. It is now time to focus on these issues to achieve better natural resource management and rural poverty reduction.

ECA has a number of successful models for improved land management. Pilot efforts have been successful at environmentally sustainable farming, livestock and manure management in Poland and these approaches are now being tried in other countries, namely, Georgia, Romania, Moldova, and Turkey.

Farmers are receptive to support for environmentally sustainable farming methods including manure and nutrient management and minimum tillage, but these approaches generally require subsidies in the initial years.

**Box 17: Poland - GEF/Bank Rural Environmental Protection Project, FY-2000
(Total Project Cost:US\$15.8 Million)**

Poland has a rural population of 15 million, accounting for 40 percent of the population. Crop and pasture land comprise 60 percent of land area, and livestock over 40 percent of agricultural GDP, which accounts for 25 percent of employment but only 6 percent of GDP. Farm size averages 12-15 ha. Nutrient pollution from agriculture is a major cause of eutrophication of the Baltic Sea. Poland accounts for 40 percent of the agricultural land of the Baltic drainage basin. The main issue is improper storage and disposal of animal waste, rather than excessive fertilizer application.

Project Objectives:

To reduce organic matter discharges into Poland's surface and groundwater and the Baltic Sea, by helping farmers develop environmentally responsible farm management plans. Benefits will include protection of the wetland and marine ecosystems of the Baltic coast and sea.

Components:

There are two principal components of the project: (a) farm-level environmental investments in cropping, tilling, manure spreading, fertilizer application practices, constructed wetlands, manure storage facilities and buffer strips, and training of agro-environmental advisors; (b) outreach and management including public awareness, monitoring, country-wide replication strategy.

The project focuses on three areas, representative of different farm and soil types: Elbog in the Vistula Lagoon bordering Russia, Lomza on the Pisa river in Eastern Poland, and Torun on the Vistula river in the center-north of the country.

To ensure an adequate level of investments with “external” environmental benefits, subsidies are necessary. Rural environment and forestry programs in most OECD countries also contain packages of financial incentives for local farming populations who adopt such measures. This project provides grant support to farmers willing to make the investments or adopt the practices listed above. As a result of the project, there are now extension officers in Poland who have a high degree of technical knowledge regarding these improved practices.

The project is financed by a combination of GEF, European Union, Government, beneficiary, and IBRD sources. There is potential to transfer this knowledge to other countries. Similar operations are under preparation, supported under the Black Sea nutrient reduction project, in Romania, Moldova, and Turkey.

The Bank has supported participatory watershed management projects with a poverty reduction, income generation, and sustainable natural resource management focuses. This model has been quite successful and is being used to develop a natural resources project in Armenia. There is scope for extending the approach to other Caucasian and Central Asian countries. The box below illustrates the Turkey project.

Participatory watershed management is an approach to sustainable rural development, which has been used in many regions. A successful project in Turkey has been “scaled up” in a second operation, and similar approaches are being developed in the Caucasus and Central Asia.

***Box 18: Turkey - Eastern Anatolia Watershed Rehabilitation Project, FY-1993
(Total Project Cost: US\$115 Million)***

The project had two principal objectives: (1) restoring sustainable land-use management to degraded watersheds in three provinces of the Upper Euphrates River Basin; and (2) increasing the incomes of the local population living in these areas, among the poorest in Turkey.

It has introduced two institutional and behavioral innovations. First, sectoral agencies at the provincial level (agriculture, forestry, and small-scale irrigation) have begun to work together on an integrated basis in small watersheds; and second watershed rehabilitation programs have been developed and implemented with the participation of local populations.

The project has reached about 400,000 people living in over 50 watersheds. Integrated management plans were prepared including improved management and cultivation of fodder, reforestation, soil conservation, improved arable farming and fruit farming, construction of ponds for supplementary irrigation, bee-keeping, and gully protection.

The project has strong support at both local and national levels. After a successful beginning, the approach was extended to six more provinces in southern and southeastern Turkey and will now be adopted in up to 20 more provinces in a follow-up operation. The project has benefited from a high degree of local commitment as it increased local empowerment. It improved opportunity and access to resources through targeted interventions, was cost-effective, and could be maintained despite a difficult macro-economic environment. A natural resources and poverty reduction project using a similar participatory approach is under preparation in Armenia, and the follow-up project under preparation for the Turkish Black Sea and Mediterranean region will also support nutrient reduction programs.

The project was modest in its objectives and this may have contributed to its success. The design was flexible and the menu interventions could be adapted to take advantage of new technologies as they are developed and to suit changing socio-economic circumstances and variations in geography and ecosystems. Experience also shows, however, that a long-term commitment to interventions of this type is necessary.

Approach and geographical focus: In the more intensively farmed arable areas of Central and Eastern Europe with large livestock populations (Poland, Belarus, Romania), the Bank should support improved land and manure management, with a combination of IBRD and concessional funding where possible, given the “external” as well as private benefits of these activities. In the arable “central belt,” agricultural land reform and support services projects should include support for improved land management and practices, which include smaller, better-adapted agricultural machinery.

In the poorer, mountainous areas of the Balkans, Turkey, the Caucasus and Central Asia, the focus should be on participatory watershed management and community range management. Participatory landscape and ecosystems management should be focused on the Adriatic, Balkans and Carpathian mountains, Romania, Moldova, Turkey, the Black Sea, the Caucasus, Tien Shen in Central Asia, and selected Russian ecosystems.. Agricultural Support Services Projects should include specific dissemination programs aimed at the technical aspects of improved land management such as minimum tillage, stream-border protection, shelter belts, and anti-erosion methods. ECA should promote the sharing

of experience on improved approaches to land management between ECA and OECD countries, both through direct exchanges and through distance learning.

3.6.2 *Water Management*

Background and lessons learned: The north and west of the region are in general “water-abundant,” vulnerable to flooding, with often poorly drained land; the main water management issues are with water quality. The south and the east are “water-scarce,” and agriculture is dependent on irrigation, so in addition to water quality issues, there are water “quantity” issues, including the balance of water use between competing needs for irrigation, energy, and maintenance of ecological balances. The north is vulnerable to floods and the south to both floods and droughts. The south and east of the region has experienced a decline in average rainfall over the last 30 years, possibly related to global climate change.

In general before 1990, water management authorities were concerned with maximizing the short-term value of water resources rather than with longer-term sustainability. Most rivers in the north of the region have been extensively dammed for electricity generation. Nevertheless, extensive wetlands remain which perform important ecological functions and provide spawning grounds for fish especially in the Black Sea, the Baltic, and the Caspian basins. Declining maintenance of river structures has increased the risk of damaging floods or dam breaks. Poor irrigation water management and poor drainage practices have led to waterlogging and salinity problems especially in Central Asia.

In Central Asia, management of the water resources of the Amu Darya and Syr Darya, which flow into the Aral Sea, has caused particular difficulties since the break-up of the FSU. Competing needs have emerged between upstream riparians where the water originates, and downstream riparians, which are the main water users. Turkey also has differences with downstream riparians regarding development of the Tigris and Euphrates.

Bank policy has been to promote an integrated approach to water resource and river basin management. While this may be useful for planning purposes, investments are more successful if implemented locally. Planning without investment frequently does not serve much purpose. For example, work supporting river basin management in Russia did not progress far since no investments were involved, while planning work on water quality management in the Black Sea Basin has recently attracted real client interest because it has been linked to an investment package. Because of the substantial “externalities” and the public goods element in improved river basin and water quality management, public financing on concessional terms is usually necessary. Improved management may often include carefully planned and implemented, new infrastructure investments. The Box below illustrates an investment operation which addresses key water resource and environment issues in the Lower Syr Darya river in the Aral Sea basin.

In much of the region, carrying out rehabilitation of irrigation structures without addressing drainage and improving the efficiency of water management (“more crop per drop”) will not lead to sustainable increases in productivity or incomes. The Bank has very limited experience in fisheries resource management although this is an important, and poorly managed, economic resource for many of our countries.

Water resource investments can support improvements across a range of sectors, including improved irrigation and drainage, drinking water quality, wetland and lake ecosystems, fisheries, dam safety, and river regulation.

***Box 19: Kazakhstan Syr Darya Control and Northern Aral Sea Project, FY- 2001
(Total Project Cost: US\$86 Million)***

The population living in the Syr Darya delta near the northern Aral Sea, and along the lower Syr Darya River, are largely dependent on irrigated agriculture. At the “tail end” of this water delivery system, they have suffered from increasingly unreliable irrigation water supplies as infrastructure has deteriorated, and saline groundwater and blowing salts have led to increased gastric and respiratory diseases. In addition, grazing lands, wetlands, and northern Aral Sea ecosystems have become degraded, and dam safety issues have been of increasing concern.

The project aims to mitigate the Aral Sea environmental catastrophe by improving living conditions and reducing poverty for 1.2 million people living in two districts of the Kzyl Orda Oblast. The project’s overall objectives are: (a) sustaining and increasing agriculture (including livestock) and fish production in the northern Syr Darya basin; and (b) securing the existence of the northern Aral Sea by improving ecological conditions in the delta and around the Northern Aral Sea, leading to improved human and animal health and biodiversity. The project aims to address the multiple issues of environmental degradation, deteriorating irrigation and drainage infrastructure, conflicts of water use, and weak institutional capacity.

The project is a first phase of development of the Syr Darya basin and it was identified under the Aral Sea Basin Program launched in 1994. It supports rehabilitation of the Northern Aral Sea and the delta areas, financing infrastructure and strengthening institutional capacity to improve water management in the Syr Darya basin. Project components include: (a) rehabilitation of Northern Aral Sea through construction of a dike and infrastructure to prevent erosion, thus improving freshwater distribution to the Aral Sea; (b) repair of hydraulic structures to improve the reliability of water flow in the Syr Darya; (c) rehabilitation of the Chardara Dam, whose collapse would lead to large scale destruction and loss of livelihood in the lower Syr Darya; (d) restoration of aquatic resources and fisheries in the Northern Aral Sea; and (e) monitoring, evaluation, and project management. The economic rate of return from more reliable water supplies and increased crop, pasture and fisheries production is estimated at 29 percent; these estimates do not take into account the biodiversity or ecosystem restoration benefits.

Approach: The ECA approach is consistent with the emerging corporate water resources strategy, which emphasizes that improved water management and development may often go together. We will help clients prioritize water resource management and development decisions according to economic, social and environmental criteria, and we will support priority investments in better water management and use. The box below illustrates a recently completed water resources strategy for Armenia, which articulates clear investment and institutional management options. We should support the range of water resource rehabilitation development investments including irrigation, drainage, flood management, hydroelectricity generation, and wetland restoration. When ERRs are adequate, the rural poor will benefit, the environmental impacts are positive and the investments will be financially sustainable. In general, there will be an appropriate role for the public sector in such investments because of the wide-reaching cross-sectoral impacts and the ‘externalities’ they engender. In general, the priority will be on rehabilitation and completion of existing schemes rather than creating new ones. We should continue to seek concessional and GEF funding for water management investments affecting international waters and globally significant ecosystems.

Geographical priorities for better water resource management include Central Asia, followed by the Caucasus and Turkey. In Central Europe, Russia, Belarus (when our dialogue improves), and Ukraine our focus will be on improved water quality management and flood control.

Water resources sector work can help identify priorities and address inter-sectoral trade-offs. Implementation depends on inter-ministerial cooperation and balances between competing interests within countries.

Box 20: Armenia Integrated Water Resources Management Strategy (2001)

Water resources play a key role in Armenia's development. Hydropower accounts for 35 percent of energy production. The level of the country's largest water-body, Lake Sevan, has been reduced by more than 20 meters because of excessive withdrawals. Rainfall averages 620 mm but is only 300 mm in the Ararat Valley where the land is most fertile. Total renewable water resources are 9.9 billion m³ including international transfers. Total withdrawals have declined since 1985 because of the decline in use of irrigation water from 67 percent to 43 percent of withdrawals and are currently 2.5 billion m³. Distribution of resources is very uneven, water resource use is inefficient, inter-basin transfers have had damaging environmental effects, and water use for ecological and recreational purposes and for fisheries has been neglected. Armenia is vulnerable to flash floods from melting snow and heavy rain, but also from poor maintenance of flood mitigation infrastructure, over-development of flood plains, deforestation, and drainage of wetlands.

The objectives of the strategy are to help the Armenian authorities formulate alternative water management strategies, prepare a water action and investment plan, and enhance local institutional capacity. The plan preparation would also improve cooperation between different stakeholders in the water sector in Armenia and improve cooperation between local and international stakeholders.

The strategy articulates clear investment and management options, each with trade-offs between use of water for irrigation, hydro-electrical, and ecological purposes. It provides a quantified estimate of the costs and benefits of the different strategies and based on this analysis, recommends a preferred strategy.

The work builds on the Lake Sevan Action Plan, financed with a previous grant, which aimed to improve management of this lake and its watershed. The Bank has also supported two operations to improve irrigation management and to provide better water and wastewater services for Yerevan, and a Dam Safety Project, all ongoing. A watershed rehabilitation and poverty reduction project is also under preparation in the upper watershed of Lake Sevan; local communities will select from a menu of options to improve pasture and community forest management. The project also supports improved state and protected area management.

Despite progress in many areas, institutional and management challenges remain for Armenia, particularly regarding inter-ministerial and inter-sectoral cooperation. As in many countries, it is not clear whether the water code being currently developed, provides the framework for balanced consideration between different water resource uses.

3.6.3 *Forests*

Context and lessons learned: The region contains 23 percent of the world's forested area and Russia alone accounts for 15 percent of the carbon sequestered in forests. Consequently, forests in ECA have global as well as national importance. The countries in the north and west of ECA and in the Balkans are heavily forested, and forests are important to the economy and exports. Forests also have cultural and recreational values. Declines in harvesting and processing related to economic depression following the transition have led to increased rural unemployment and poverty. Increased investment in forest processing will play a role in economic recovery.

These countries generally have well established forest management regimes and are moving towards multi-purpose, landscape approaches to forest management. However, increasing financial

difficulties have reduced funding for the “public” functions of forests and contributed to increased fire and pest outbreaks. For example, three million hectares were damaged by fire in the Russian Far East in 1998. In some countries, there have been increases in illegal logging due to low salaries, paid late, for forest management staff and to broader problems with law and order. Illegal logging is also related to increasing rural poverty and rising fossil fuel energy prices.

In Central European countries, forest land restitution to new forest owners, many of whom are poor, with short-term economic horizons and without experience in forest management, poses particular challenges to sustainability of the forests. Many of these countries are struggling to redefine the public and private sector roles in forest management and utilization, while adapting to EU markets which are increasingly demanding timber products from “certified” forests. Forests in Turkey and the Caucasus are exceptionally rich in biodiversity and play a role in watershed protection. In general, the “non-timber” values are greater than the timber values. They are important for timber, fuelwood, and fodder for rural communities, plants and herbs, recreation and tourism. The Central Asian countries are “forest-poor” with forests accounting for less than 15 percent of the land area, but these forests play a role in flood prevention, watershed protection, and in the livelihoods for poor rural communities. *Box 21* illustrates an attempt to value some of the non-timber as well as timber values of forests.

The Romanian authorities are now preparing an operation for Bank finance to assist with restructuring during restitution. Romania is an example of a country where we have pursued a range of instruments to help with sustainable forest management and conservation. A Biodiversity Strategy and GEF-financed Protected Areas Project helped establish the dialogue; this, together with the sector work, highlighted both the importance of forestry and the issues associated with restitution, leading to the request for project assistance.

ECA has learned that reforms in forest policies, including privatization of the commercial functions of forest management, can be successful but should not be rushed and should be planned with broad stakeholder involvement. Community-based approaches to forest management have worked well even, where the broader governance framework has been difficult for example, in Albania (see *Box 26*). It has been very difficult to address the problems of declining forest industries as investment is a private sector activity. Except in Central Europe, few investors have been forthcoming because of the broader investment environment. Without investments to increase local value-added from processing, there will be pressure to “extract” logs, thus contributing less to rural poverty reduction.

Forests are used both for conservation and for economic development. Balancing these two uses has posed increasing challenges, with some NGOs arguing that the balance should be more in favor of conservation. The region has learned that local communities must be involved in biodiversity management for programs to be respected in practice. This has been done successfully in Turkey, Romania, and Russia.

Approach: ECA strategy is consistent with the new emerging Bank Forest Strategy, which focuses on poverty reduction, sustainable economic development, and protection of the global values of forests. The aim is to establish transparent policy, and institutional and legal frameworks that can provide a basis for sound governance, investment, and sustainable development, including support to market-based instruments such as “certification.” ECA will help to establish forest management systems that provide for sustainability, involvement of local communities, and conservation of key ecosystems.

Full economic valuation of the forest sector and a participatory approach to development of a forest strategy have helped to bring about broad-based consensus for structural reforms and for careful management of the process of restitution of forest land to new private owners.

***Box 21: Romania Forest Valuation and The Forest Development Project, FY- 2002
(Total Project Cost: US\$43 Million)***

There are 6.2 million ha of forests in Romania. Forests have been well managed in the past, with biological functions, watershed protection, and conservation well integrated into the planning and harvesting regime, which has focused on natural regeneration and maintenance of indigenous species. Forests also play an important role in Romania's social and economic development, providing a major source of rural employment and income from harvesting, wood processing, and non-timber forest products industries. The 1997 export value of forest products was US\$860 million, and the sector's contribution to GDP was approximately 5 percent. The Bank began its support to the forest sector in Romania with a biodiversity strategy in 1995, followed by the GEF-supported Forest Biodiversity Project, approved in 1999. This work helped to develop a dialogue with the Romanian authorities and led to an understanding of the broader significance of forests to the Romanian economy.

The non-money values of forests are larger than the financial, but traditional accounting methods have masked this. The Bank commissioned a Total Economic Valuation (TEV) of the Romanian forestry sector.¹ It indicates that the annual value of all products and services provided by Romania's forests is more than US\$3 billion. These estimates would be higher with the inclusion of downstream value added from the existing wood processing industries and income derived from tourism. This analysis led to greater appreciation of the importance of the sector to the national economy and formed an input into development of a forest strategy.

A political decision has been made to reconstitute over 30percent of forests to private owners, many of whom have little experience in forest management. Furthermore the National Forest Authority, currently responsible for all forests, will retain responsibility for managing protection forests, but with a reduced revenue base, since much of the production forest will be transferred to private owners. Strategy development built appreciation of the risks to the forest economy of restitution without a phased approach to establishing support structures and a regulatory framework for managing of private forests, and a revision of the financing and management of state forests.

The strategy has led on to preparation of a Forest Development Project which provides support to structural reforms in the forest sector, including; (a) support to new forest owners, (b) improved forest land use planning, management and harvesting regimes in production forests, (c) improved forest road design and (d) financial and institutional reforms for the National Forest Authority. It will also help new owners access funds under the European Union program, SAPARD. The project has environmental and social as well as economic and fiscal benefits, and the rate of return is estimated at 40 percent.

Growth in processing industries can also play a role in employment and income for poor communities. IFC should be encouraged to take a lead role in direct investment, and the ECA Private Sector Development Unit can provide investment guarantees against non-commercial risk. One such operation proposed for Russia provides political risk guarantees for financially and environmentally sustainable investment in coal and forest utilization. The region should also provide training, education, information, and planning assistance. Finally, ECA should address commitments to global environment conventions through use of instruments such as GEF and carbon emissions trading as these develop.

Even in countries with weak institutions, community-based forest management can be a successful approach.

***Box 22: Albania-Supporting Community-based Forest Management in a Transition Economy
Cost US\$20 Million, Loan US\$8 Million, Effective 1996***

Albania has a population of 3 million, of whom 60 percent are rural, and a land area of 27,000 km². Forests comprise 38 percent of land area. With a GDP of only US\$810 per capita, there is pressure on natural resources. Albania is one of the poorest countries in Europe, and poverty levels are higher in the rural areas and especially, in the hills and mountainous areas in the north of the country.

The project has three objectives:

- Restore degraded state-owned forest and pastures areas and promote their sustainable use;
- Promote conservation of natural forest ecosystems; and
- Start transition of the forestry/pasture sector to a market economy, separating commercial from regulatory functions and establishing mechanisms for self-financing of the commercial activities.

Because of broader poverty, law and order and governance issues, it has been difficult to control illegal harvesting and improve forest management on publicly managed land. The component supporting transfer of user rights and management to local communities has, however, worked very well; user rights have been transferred for 10 years. Local communities have been assisted with development of management plans and have invested user fees in improving the resource. This component was originally planned for 30 communes but has spread to over 100. Partly as a result of its success, the Albania authorities have now embarked on a program to address illegal logging and to reform institutions.

In forestry, partnerships are key, with NGOs and local communities for protection and management, with IFC and PSD for private sector investment, with GEF and other international partners for biodiversity conservation and carbon trading, and with WWF for developing independent certification systems for sustainable forest management.

Geographic focus: In the “forest-rich” countries of Russia, Belarus, Ukraine, most of the Balkans, Romania, Bulgaria and Georgia, ECA will focus on improved public sector management, fire and pest management, and support for sustainable approaches to forest land restitution. This includes improved regulatory frameworks and support services to new forest owners. In the “forest poor” countries of Turkey, Armenia Georgia, Central Asia, and Albania, ECA will focus on community forest, range and watershed management aimed at poverty reduction and sustainable rural livelihoods. In all countries, the region will continue to support participatory approaches to improved protected area management and biodiversity conservation, and to “mainstreaming” biodiversity conservation into forests that are also managed for sustainable production.

3.7 Disaster Management and Risk Mitigation

3.7.1. Natural Disasters

Improved security against natural and man-made disasters is one key element of human well being. Although these disasters may affect rich and poor equally, the poor have fewer coping mechanisms. Any “pro-poor” strategy must therefore include improved disaster management. We

address together in this section, earthquakes, floods, droughts, risks to dams, forest fires, pests and diseases, and post-conflict recovery.

Context and lessons learned: Parts of the region are highly vulnerable to earthquakes, especially Turkey, but also Romania, Bosnia, Armenia, and parts of Uzbekistan and Kazakhstan. In general, countries are poorly prepared for earthquakes though Turkey has made much progress recently. Poland, the Danube basin, and parts of Belarus and Russia are liable to floods, as are parts of the Caucasus, Turkey, and Central Asia. River flows in most countries are highly seasonal. Reduced funding for dam maintenance has increased the risk of dam collapse especially in the Caucasus and Central Asia.

Much of the region is drought-prone, and the collapse of irrigation systems (, in Georgia, Moldova, and Bulgaria) which reduced vulnerability to changes in the weather, has also reduced this key ‘coping mechanism’ of the rural population. There have been recent severe droughts in Uzbekistan, Turkmenistan, Tajikistan, Armenia, Georgia, and Moldova. Average rainfall in southeastern Europe has been about 10 percent less over the last 30 years than the previous 70. Although it is a controversial subject, there is agreement that climate change is occurring and will bring about increasingly frequent extreme weather events.

Declining funds for fire management, together with human carelessness and recent droughts, have increased the frequency and severity of forest fires, with substantial economic loss of commercially valuable timber, rural livelihoods, and whole ecosystems as well as increased carbon emissions affecting the global climate. Recent fires in the Russian Far East damaged three million hectares, and there have been severe fires in Bulgaria, western Russia, and Turkey. Locust outbreaks occur regularly, especially in Central Asia, but funds are declining for early warning and management. Integrated Pest Management practices (IPM) are not yet widely practiced.

Industrial accidents remain a hazard for the rural as well as urban society. Chernobyl has contaminated large areas of agricultural and forestland in Belarus and Ukraine; oil spills in Komi damaged forestland; and forests, especially in western ECA countries, have also been damaged by wind-borne air pollution.

Disasters will continue to happen. Helping with disaster recovery is essential; however, countries also need to strengthen their capacity to forecast, plan, and prepare for disasters. Public awareness and early warning systems are essential for all types of disasters including earthquakes, floods, droughts, forest fires, pest outbreaks, and dam collapses. Risk spreading through insurance schemes is a useful tool for all types of disasters but is still poorly developed as an instrument. In Turkey ECA has had a long involvement in disaster recovery and has developed an approach to disaster preparedness and mitigation which may serve as a model for other countries. It is described below in **Box 23**.

While non-structural measures such as public awareness and early warning can reduce loss of life from dam breaks and other disasters, structural solutions such as dam repair, better designed buildings, and expansion of settlements away from flood-prone areas are also necessary. **Box 24** summarizes a recent dam safety project for Armenia.

Similarly, for fires and pest outbreaks, there must be capacity to respond quickly as well as public awareness and early warning. Provision of needed inputs such as seeds, livestock, and fertilizer can facilitate recovery from drought and flood and accelerate restoration of incomes after civil conflict. Following a severe forest pests outbreak in Central Siberia in 1996, ECA was able to respond quickly by reallocating funds from an existing loan; ECA was also able to support emergency investments in agricultural equipment and rural water supply in 2000, following droughts in Uzbekistan and Tajikistan.

Successful disaster mitigation involves planning, forecasting, insurance, and mitigation measures as well as reconstruction.

***Box 23: Turkey Marmara Earthquake Emergency Reconstruction Project, FY-1999
(Total Project Cost: US\$1.79 Million, Loan US\$505 Million)***

On August 17, 1990, the Marmara region of Turkey was hit by an earthquake measuring 7.4 on the Richter scale. Seventeen thousand people died, two hundred thousand lost their homes, and industry and infrastructure valued at US\$3 to US\$5 billion was destroyed.

The objectives of the project were (1) to help restore living conditions in the region of Turkey affected by the Marmara Earthquake; (2) to support economic recovery and resumption of growth; and (3) to reconstruct and repair damaged infrastructure and housing.

The project supports development of a comprehensive framework to help Turkey better plan for earthquakes, mitigate their consequences, and recover more quickly from them. This includes a four pillared strategy combining measures to mitigate the impacts of disasters when they occur, preparedness and planning systems, and rapid response systems to facilitate recovery and reconstruction when disasters do occur. This model is beginning to be adapted in preparation of projects to assist other countries in ECA which are vulnerable to disasters, such as Romania.

Strategy for Disaster Management:

1. Mitigation

- Disaster insurance scheme
- Major policy changes
- Land use planning
- Enforcement of building codes
- Cadastre renovation and land management

2. Preparedness

- National emergency management system
- New emergency management agency
- Regional pilot projects
- Public awareness campaign

3. Recovery

- Social trauma program
- Budget support (MERL project)
- Business rehabilitation

4. Reconstruction

- Rural and urban housing units
- Municipal infrastructure
- Power distribution networks
- Social infrastructure
- Planning, design, and supervision

Investment in dam safety and capacity building for responding to emergencies helps protect the rural population against disasters.

***Box 24: Armenia Dam Safety Project
(Project Cost: US\$30 Million (Govt. \$4.5, IDA \$25.5))***

Water resources play a key role in Armenia's development. A total of 57 reservoirs have been constructed, of which 15 are in urgent need of repair. In response to increased fossil fuel prices, the Government has increased the use of hydropower for electricity generation, leading to additional pressure on dams in winter and spring and water shortages in summer.

In response to the deteriorating agriculture infrastructure in Armenia, degradation of irrigation and drainage systems, and reduced dam reliability and safety, an Irrigation Rehabilitation Project (IRP) was launched in 1995.

The Armenia-Dam Safety Project (1999), under the Irrigation Project umbrella, aims to decrease the risk to life and property downstream and to increase the volume of water to support dam-based economic activities. Safety risk has been reduced for 360,000 people, risk of potential flooding has been reduced for 680 sq. km of agriculture area, and enhanced water supply security has increased for 20 percent of total irrigated area.

The project supports: (a) rehabilitation of 20 primary irrigation dams, and (b) strengthened institutional capacity of the Dam Maintenance Enterprise to respond to emergency situations. The project, simple in design with clear objectives, has worked well and has been evaluated as "best practice" by the Quality Assurance Group.

Post-conflict recovery has posed challenges regarding rebuilding of institutions and balancing necessary speed with corruption-free procurement and delivery. Nevertheless in the Balkans, ECA helped to re-launch agricultural production through provision of emergency equipment, livestock, and other inputs.

Approach: For earthquakes, ECA should build on the model developed successfully in Turkey. This involves working with the range of stakeholders to gain full commitment to effective disaster planning/recovery programs. Technocrats, central and local government, civil society and the army must all be willing to work together. ECA needs to be ready to respond quickly with innovative lending instruments and flexibility regarding fiduciary policies, through amendment/extension of existing loans and accelerated procurement procedures.

Improved disaster planning and management components should be included in the design of new projects where organizationally feasible, for example, (a) pest management in agricultural services projects; (b) earthquake mitigation/improved building standards in construction projects; (c) irrigation rehabilitation, better soil/moisture management for drought mitigation; (d) fire and pest management in forestry projects and support for forest management practices which mitigate air-borne pollution.

Where institutional complexities require a simple approach, single-objective projects should be designed (dam safety, earthquake planning, flood planning/mitigation, pest management, fire management), but where the institutional capacity is there for a more comprehensive approach, this should also be supported.

The region should begin working with counterparts on planning for global climate change through development of climate forecasting and strategic crop planning, including increasing use of

drought tolerant crops and water harvesting. ECA should develop comprehensive risk mitigation strategies for high-risk areas and help client countries develop insurance mechanisms available to the rural population to mitigate individual risks from disasters.

We should continue to assist with post-conflict recovery.

Geographical Focus: High-seismic risk areas, namely Turkey, Romania, and Uzbekistan, are clear priorities for earthquake management.

Flood control and dam safety management should focus on Poland, Romania, the Caucasus, Turkey, and the mountainous regions of Tajikistan and Kyrgyz Republic. Moldova, Southeastern Europe, Turkey, the Caucasus and Central Asia, Southern Russia, and Ukraine should all include a focus on drought management in project design. Forest fire management should be a priority for Russia but also for the Adriatic (Croatia), Balkan (Albania, Bosnia, Bulgaria), and Mediterranean (Turkey) forests. The focus of pest management should be Kazakhstan and Turkmenistan; however, improved pest management approaches should be an element of most agricultural services projects.

The priorities in assessing and mitigating the impact of climate change are southeastern Europe, Central Asia, and the Caucasus.

3.7.2 *Financial Risks*

Context and lessons learned: Agriculture is an inherently risky sector. Weather is variable and severe shocks from droughts, hail, freezes, and floods are frequent; international commodity prices are highly volatile; produce is perishable and has to travel long distances; pest outbreaks can affect standing and stored crops. Most developed economies have financial instruments to assist farmers and traders of agricultural products to mitigate some of these risks, including, among others: difference types of insurance, hedging mechanisms, and futures trading.

In most ECA countries, there is insurance for basic coverage: vehicles and large pieces of farm machinery, buildings and some inventories, however, other instruments are not available. In some countries, there is significant sovereign risk, that is, risk of policy reversal that could render an investment or loan unprofitable due exclusively to a change in government policy such as, imposition of new taxes, prevention of export, or refusal to allow foreign exchange conversion. However, sovereign risk facilities have been surprisingly hard to implement in practice, despite their conceptual appeal.

Crop insurance is not financially self-sustainable in any country of the world, but certain kinds of locality-based, rainfall-index type insurance, reinsured internationally are proving, at least conceptually, viable. The Bank has begun to experiment with such instruments in Latin America and recently has teamed up with AID to analyze the prospects for an intervention in this area in Romania.

Approach: ECA should seek to work with our clients and with partners to further development of all of these instruments on a cost-effective basis. We should continue to pursue sovereign risk facilities in countries where newly reformed policy environments do not yet have credibility with foreign investors/lenders.

Geographic priorities: Priorities for new instruments should be Romania and Bulgaria.

CHAPTER 4

Implementation

Implementing the sub-regional and sub-sectoral strategies described above will involve some adjustment in approaches to work. In designing these strategies, ECA has undertaken a careful review of Bank support to assess the effectiveness and to learn from experience. The intention is to capitalize on those interventions that have worked well by replicating and scaling them up; and also to be frank about those efforts that have not worked as well, so as to identify improvements or to shift resources away from those areas. Bank work will include four areas of emphasis: (a) integrating the need of the rural population and rural poor in national policy formulation; (b) replicating and scaling up investment in rural areas; (c) promoting innovative approaches to rural development; and (d) enhancing partnerships.

4.1 Key Areas of Emphasis

4.1.1 Integrating the Needs of the Rural Poor in the National Dialogue

As discussed above, client demand should be the fundamental driver for determining the work program of the Bank and IDA. Once client preferences have been expressed, the Bank should respond depending on where it can best complement without duplicating, the work of partners, where it has the greatest comparative advantage, and where there are models that work. Experience shows, however, that the rural poor often have little voice in national decision making processes and that “client demand” may sometimes not fully integrate the needs and choices of rural populations.

To overcome this constraint, without in anyway undermining the principle of client/demand driven work, ECA aims to help rural clients be effectively heard in the national debate about country priorities by providing support to countries to develop strategies to reduce rural poverty. Working in partnership with local stakeholders (NGOs, governments, local administrations, academic institutions, producer groups, women’s organizations and the private sector), the region will help to organize workshops and consultations, to guide local diagnostic, analytic, and strategic work and the preparation of policy notes. This work will focus on the holistic , multi-sectoral view of rural development. It will be aimed at raising the visibility of rural issues to Ministries of Finance and country teams in the Bank to ensure that they are properly considered in the determination of areas for Bank support.

Bank staff will support national rural development strategy formulation, as part of an enhanced rural contribution to poverty assessments, (Poverty Reduction Strategy Papers, Country Assistance Strategies and Public Expenditure Reviews), and through stand-alone policy notes. They will aim to provide this enhanced contribution for an average of two countries per year. They will select areas for intervention based on where there can be the most impact, for example, where there are windows of opportunity for influencing PRSPs and CAS.

4.1.2 Replicating and Scaling up Investments in Rural Areas

In an effort to increase impact, ECA will emphasize identification of successful work that merits replication and scaling up, both within individual countries and across countries. For each of the thematic

areas ECA staff have identified as critical to achieving successful rural development, they will identify those interventions that have been highly successful in practice and seek to apply those models to the maximum extent possible. The process has already started, emphasizing approaches developed in:

- Farm Privatization and Restructuring (Azerbaijan)
- Land Administration (Georgia)
- Development of Water User Associations (Albania, Turkey, Azerbaijan, Kyrgyz Republic)
- Irrigation infrastructure rehabilitation (Azerbaijan and Tajikistan)
- Community based Microcredit (Albania and Moldova)
- Low Cost Credit Delivery Systems (Latvia and Romania)
- Competitive Grants for Agricultural Research (Turkey, Georgia, Romania)
- Community-based Local Infrastructure (Poland, Romania)
- Environmentally Friendly Farming (Poland and Romania)
- Participatory Watershed Management (Turkey and Armenia)
- Improved Forestry Management and Institutional Reform (Croatia and Bosnia)
- Disaster Recovery, Management and Mitigation (Turkey and Poland)
- Dam Safety

4.1.3 Promoting New and Innovative Approaches in Rural Development

While focusing on expanding the reach of models that have been successfully implemented, ECA also needs to develop new models in areas that are priorities for clients. Several of these have been discussed above, but others include (a) jump starting off-farm enterprises in rural areas, (b) stimulating efficient agro-processing activities (from privatized or new firms), (c) creating marketing institutions where state agencies have closed and private firms have not moved in to fill the vacuum, (d) developing low-cost solutions for providing rural energy supplies and for delivery of health and education services, and (e) balancing short-term needs to maximize production with longer term sustainable natural resource management.

The region also sees the need to move quickly to develop effective models to develop the rural knowledge economy, possibly through the use of rural telecenters that provide information on issues from local government services, to local commodity prices, to links with purchasers and sellers of goods, to global distance learning programs. This is especially important in the more sparsely developed countries of the region, such as Kazakhstan.

4.1.4 Enhancing Partnerships

ECA is committed to working with other partners, recognizing the enormous strengths they bring. Recent partnerships have included CGIAR for agricultural research and the World Wildlife Fund for sustainable forest management. Many projects are co-financed with other agencies including bilateral and multilateral aid agencies. ECA is also increasingly working with NGOs especially for community driven projects. However, this is not always easy and their priorities, procedures (especially procurement, but also many others), and time horizons can be quite different from those of the Bank/IDA. In the strategy, ECA explicitly recognizes that partnerships, even with IFC, are not cost-free or easy, and expectations need to be adjusted accordingly. ECA will strive to maximize synergies with partners, carefully balancing the costs and benefits of these relationships for clients. Partnership agreements reached at high levels often do not have adequate budget support at country level for effective implementation, and expectations need to be clear in light of fiscal realities.

4.2 Internal Institutional and Resource Alignment

4.2.1 *Enhancing Multi-Sectoral Cooperation in Rural Space*

In general, the organization of Bank and counterpart ministries in client countries often means that rural activities outside agriculture (for example in energy or education) get less attention than they might on their own merits. PRSP work has tended to focus on analytical work, the social sectors and macro economic conditions. In order to implement the strategy, ECA needs to work closely with other sectors in client countries and in the Bank, especially the Human Resources and Infrastructure Sector Units, but also with Poverty Reduction and Economic Management, and Private and Financial Sector Development. Few projects outside ECSSD are aimed specifically at rural areas. ECA should put a particular emphasis on making sure that rural issues are well treated in CASs and PRSPs in the future. This means ensuring that the appropriate level of intervention is consistent with the importance of the sector and the degree of rural poverty.

4.2.2 *Improving the Mix and Performance of Instruments*

One key instrument is lending but the ability to use this instrument is limited for a number of reasons. For Central European countries with increasing access to EU funds and to commercial capital markets, World Bank money is increasingly non-competitive. On the other hand in the former CIS, the Bank is reluctant to lend to the slow reformers, and there are debt and IDA lending constraints on the poorest countries. On some occasions, Bank procedures, particularly those regarding procurement, financial management, and environmental safeguards, are regarded as cumbersome and expensive, and thus, decrease borrower interest, even if overall they increase cost-effectiveness, transparency, and project design. The strategy is to continue to use lending instruments to the extent possible within these constraints, as the development impact of this tool remains the most significant, but to expand use of non-lending instruments as a complement where there is demand from the client.

Even where there is not a consensus in country for policy reform, ECA will maintain a dialogue and undertake small investment pilot operations to facilitate dialogue, providing more extensive assistance when the policy environment improves.

4.2.3 *Lending*

The following table shows the level of lending into rural space (including rural infrastructure, energy, and social services) in 1999 and 2000. Twenty percent of ECA lending is target directly at activities in rural areas. Approximately 35 percent of the population and 50 percent of the poor reside in rural areas. Since about half of ECA lending is aimed at national level development, intended to benefit both rural and urban areas, this share is probably about right. Lending by subsector is shown in Annex 1.

Table 9: Bank/IDA Lending into Rural Space

	\$US Millions		% of Total	
	1999	2000	1999	2000
ECA	680	599	13	20
Total Bank	5786	4080	20	27

4.3. Lessons Learned and Approach to Lending

4.3.1 *Lessons Learned*

Chapter 3 discusses lessons learnt in some detail. In particular, ECA has learnt that reform takes time.

- Fundamental reform takes time, sequencing is crucial, and privatization without a supporting institutional and regulatory framework does not necessarily lead to development of a market economy and prosperity. During regional consultations stakeholders emphasized that the reform agenda has often been too ambitious in terms of pace. Commitment to reform by technocrats and academics is insufficient. Without support from elected representatives and civil society, reforms are frequently not sustainable.
- Delaying investments until policies are right can reduce the ability to help large numbers of poor and can sometimes significantly increase the eventual costs of investments (e.g., to rehabilitate deteriorated irrigation and drainage infrastructure). Support for modest investments, combined with modest policy and institutional reform, is often a successful approach, if economic returns are acceptable.
- Simple project design usually works best (and again regional stakeholders made this point). Successful projects should be geographically focused with strong local participation if they support a complex agenda (e.g., community based watershed rehabilitation, rural infrastructure, land reform and farm restructuring with redesign of field irrigation systems). They should support only one area for intervention if they are nationally focused (e.g., community-based micro-credit). Complex, national-level projects have worked less well.
- The weakest dimension of projects in the past has been development of institutional capacity and sustainability of project activities after withdrawal of Bank financing. Improvements in these areas can come through close work with local institutions and by supporting bottom up approaches such as community-driven project identification and implementation. Institutional capacity building and community driven activities work best when supported by investments.
- Fiduciary policies (financial, procurement, environment) increase the cost of doing business, but their objective is to improve project quality, and borrowers need to know how to follow them. Increasing attention on these policies and “zero tolerance” for error has led to risk aversion and disincentives for innovation.

4.3.2 *Approach to Lending*

Both adjustment and investment lending will be supported; the approach to each is discussed in more detail below. Developing community-based approaches and creating institutional capacity works best through investment, policy reforms can be supported with these operations, and often, there is more commitment from stakeholders when reforms are accompanied by investment. Agricultural adjustment operations and agricultural components of economy-wide adjustment lending can be effective if there is deep commitment to reform on the part of the client.

4.3.3 *Investment Lending*

ECA will maintain a heavy focus on traditional investment lending which has proven the most effective manner of reaching the rural poor and involving communities in improving their own well-being. The region will support policy and sub-sector policy reform with investment loans as Board conditions often, recognizing that reform takes time during the implementation phase of the reforms.

Examples of success with this approach include: (a) support to decentralization of water management and water user associations through irrigation projects; (b) involvement of local communities and local governments in design and implementation of natural resources and local infrastructure improvement projects; (c) improved forest management policies through support to improved forest institutions, inventories, planning, financing and protection; (d) land reform through support to farm restructuring; (e) development of land markets through cadastre and land registration projects; and (f) improved rural financial policy through loans requiring market interest rates and elimination of subsidies. Locally driven development is frequently effective in overcoming the governance problems faced in many ECA countries, and we will aim to use this approach as much as possible.

To improve project design, ECA will endeavor to ground lending in analytic work undertaken with client participation and to draw more heavily on lessons from other projects.

Project design will attach increasing importance to the participation of local communities in project identification, design, and implementation. Social Investment Funds (SIFs) and Rural Development Projects (RDPs) are two approaches to do this⁶. Both involve communities in identifying priorities and implementing activities. RDPs work within existing institutional frameworks whereas SIFs involve establishment of autonomous implementing agencies. Both create a tension between “bottom-up,” community-driven and “top-down” efficient planning approaches as discussed above. ECA will generally focus on RDPs since they work within the existing institutional structure, a feature which enhances prospects for sustainability.

As discussed above in Section 3, ECA will aim to include modest investment operations in slow reforming countries where large numbers of rural poor will benefit and where economic and financial returns are adequate.

4.3.4 *Adjustment Lending*

Adjustment operations can provide important support for sectoral policy reform and enhance policy dialogue with clients. They are less effective, however, for implementing institutional reforms or for implementing community-driven development efforts, which are key to sustainable rural development.

ECA will use adjustment operations sparingly, when there is a broad reform agenda and when there is true ownership by the Borrower. ECA will work with clients to integrate sector policy issues into broader macro-economic programs and adjustment loans where there is more leverage and to emphasize one-tranche operations within the context of a medium-term framework.

⁶ Support to water users associations, to credit associations using social collateral, and to participatory natural resource management are also community-based approaches to rural development.

Design of adjustment operations will involve broad-based stakeholder participation and evaluation of social and economic impact and will aim to balance short-term income and productivity growth with long-term environmental, social, and institutional gains.

4.3.5 Guarantees

Sovereign risk guarantees provide an instrument through which an investor can purchase a guarantee against non-commercial risk. Such risks can include deprivation of property, denial of the right to repatriate foreign exchange earnings, or discriminatory changes in regulation and taxation. Guarantees, in principle, provide a built-in incentive for governments to maintain consistent, market friendly policies. The Bank has had few successful examples yet in the use of such guarantees; however, ECA will continue to consider this instrument should circumstances be appropriate.

4.3.6 Improving the Quality and Impact of Bank Operations

In general, the quality of rural projects in ECA has been satisfactory. Nonetheless, there are two particular areas for improvement: the poverty focus of operations and the institutional impact.

To introduce greater poverty orientation in our projects, ECA will ensure that interventions have many of the following features:

- A clear, poverty-related statement of objectives;
- A clear rationale that is linked to a PRSP or strategy paper;
- An identification of the poor, in numbers, gender, groups and location, who will benefit from the intervention;
- Carefully specified institutional mechanisms for support to interventions and linkages with grassroots organizations; and
- A review of alternative investments from a poverty reduction perspective.

To improve the institutional impact of interventions, ECA will put greater focus on institutional sustainability over the medium term. In particular, institutions participating in projects would be analyzed to ensure that they have: (a) the resources; (b) adequate staff with the necessary skills; (c) the facilities and equipment; (d) a clear mandate to carry out their designated task; and (e) the right incentives to carry out their tasks. This analysis will be carried out during project design.

ECA will continue to carry out Quality Enhancement Reviews for key projects, especially the more complicated or risky ones. Targets for quality are listed under “Measuring Performance.”

4.4 Non-lending Services

These services include technical assistance, capacity building, the Global Environment Facility (GEF), the Prototype Carbon Fund (PCF) partnerships, study tours, knowledge management, economic, and sector work, including contributions to PRSPs, Economic and Sector Work and Country Assistance Strategies. We will complement our lending with non-lending services on an increasing basis, with a heavy emphasis on providing stronger rural focus to PRSPs.

4.4.1 Economic and Sector Work

Evaluation of economic and sector work shows that our analytical work has been strong and has been particularly useful for the policy dialogue. As our work shifts to a greater extent toward

contributions to PRSPs and toward investment lending, however, there are ways in which we can enhance the effectiveness of our products.

There will be greater focus over the next years on understanding the dimensions of rural poverty, its causes, and its effects, and on developing practical ways to reduce it. ESW will be better linked with operational work, making recommendations more implementation oriented and more specific with improved analysis of the impact of policy and investment interventions, and better incorporation of the lessons from project experience into ESW.

ECA will also put an increasing emphasis on providing “just-in-time” sub-sector notes that respond to specific issues raised by our clients, and we will draw more on international experience to provide clients with options as they pursue reform. ESW will be more participatory, involving input and feedback from those affected most by the issues under study. Finally, analytic tasks should be prepared quickly in an effort to improve their operational relevance and should be carried out, to the extent possible, by the person who is responsible for lending in a particular country.

4.4.2 Global Environmental Facility, Prototype Carbon Fund

While helping client countries meet their commitments to improving management and conservation of global public goods, the GEF has played a catalytic role in rural development in two ways: first, by introducing environmentally friendly farming practices that cause less erosion and nutrient flow to water-receiving bodies; and second, by facilitating linkages between biodiversity conservation and community-based natural resource management. In water resource management, the GEF, through the Regional Seas Programs, has also financed much catalytic work to improve water quality management, water allocation, and cooperation between riparians. There will be an increasing focus in the future on “mainstreaming” biodiversity, climate change, and international waters interventions into our rural development operations which can include a mix of loan (for local) and GEF (for global) public goods. A recent example is the Armenia Natural Resources Management and Poverty Reduction Project. Administratively, partly because of uncertainties with GEF funding, there have been sometimes delays in the approval process for grants, and ECA needs to work with GEF colleagues to streamline this process.

The Prototype Carbon Fund (PCF) is a new instrument which permits concessional financing for activities which sequester carbon or reduce carbon emissions (e.g., afforestation, better range management, improved heating systems). ECA is beginning to support activities financed through this mechanism (e.g., afforestation in Romania) which is still in its pilot phase.

4.4.3 Technical Assistance and Capacity Building

IDF (Institutional Development Fund) grants have financed local capacity building for example, in agricultural policy and coastal zone management, as well as in wheat breeding. Their focus has moved recently, however, to support legal regulatory reform.

Study tours and exchanges, both within ECA and with OECD countries, facilitated through projects or separate grant funding, have been very effective in demonstrating new approaches and should be used more extensively. The region needs to make more use of opportunities for sharing experience (e.g., with agricultural research, or development of new technologies and institutional approaches. WBI (the World Bank Institute) can also facilitate these types of training.

4.4.4 *Partnerships*

Partnerships are increasingly important in both lending and non-lending services. Investment loans, especially where IDA lending is limited, are increasingly co-financed (e.g., Uzbekistan Irrigation, Bosnia Forestry), and partners also provide technical assistance.

4.4.5 *Global Distance Learning*

The Bank launched the Global Distance Learning Network (GDLN) in June 2000 as one of the several knowledge development initiatives. The GDLN uses the latest learning tools – interactive video, electronic classrooms, satellite communications and the Internet – to help bridge the knowledge divide by providing opportunities for officials from the public and private sectors, as well as young professionals, to share knowledge and to participate in courses, seminars, and discussions on key development issues. Almost 30 distance learning centers are now part of the global network; and another 50 or so are planned for next year, which will include secondary sites. In the ECA Region, two GDLN centers, Ukraine and Turkey, joined the network in FY2001. Work has commenced on an additional 8 to 10 centers for 2002.

This instrument for conveying knowledge and information has created growing interest within the region. It is particularly of interest to rural areas which often have difficult or costly access to information and training. Increased use of this tool has the potential to revolutionize the way rural activity is carried out, and we intend to explore its use to the extent possible.

4.4.6 *Measuring Performance*

Individual investment operations generally include outcome indicators. However, the inability to collect information on most of the outcomes of interest, and the inability to separate out the impact of Bank from other interventions, leads to the use of output indicators that are good proxies for outcomes to measure the impact of our strategy. Broader indicators, such as the decline in the number of rural poor or increase in off-farm employment in rural areas, can be measured but are difficult to link to our assistance strategy. ECA will therefore measure the success of the strategy implementation in the following ways:

- In the sub-regions summarized above, new lending and CAS objectives should reflect the priorities outlined in the strategy;
- New ESW should focus on the priority objectives of the strategy and should be operational;
- More than 50 percent of lending should use participatory approaches to project design and implementation;
- More than 75 percent of lending operations should focus on interventions where the poor are important beneficiaries;
- There should be an increase in direct lending for rural social services (health, education) and infrastructure;
- The balance of lending between urban and rural areas in CAS should be generally consistent with relative levels of poverty, taking into account factors mentioned above such as client interest and capacity;
- There should be additional analytic work on the dimensions of rural poverty in ECA;
- There should be additional analytic work on key rural issues not related to agriculture, such as, rural energy;
- An increased proportion of projects financed by the Bank will be implemented by local decentralization institutions; and

- QAG* results should be at least:
 - Quality at Entry: 90 percent
 - Quality of Supervision: 90 percent
 - Quality of ESW: 90 percent

* QAG (Quality Advisory Group) is a Bank unit provides an independent assessment of the quality of project design at the start of implementation, it also reviews the quality of supervision, and economic and sector work.

CLASSIFICATION OF INVESTMENT PROGRAM

BY SUB-SECTOR

I. INCREASE AGRICULTURAL/LIVESTOCK PRODUCTIVITY AND VALUE-ADDED			
Country	Project	FY	Total Project Cost (US\$ million)
1A. Complete Transition to Market-oriented Policies			
Bulgaria	Agricultural Sector Adjustment Loan II	2001	50
Turkey	Agricultural Reform Implementation	2001	600
1B. Farm Restructuring and Land Administration			
Russia	Land Titling	2004	TBD
Croatia	Real Property Registration	2003	40
Kazakhstan	Agricultural Post Privatization	2003	50
Bulgaria	Land Registration and Restitution	2002	20
Kazakhstan	Real Estate Registration	2002	9
Ukraine	Rural Land Titling	2003	115
Kyrgyz Republic	Land Registration	2000	12
Armenia	Title Registration	1999	11
Slovenia	Real Estate Registration Modern	1999	29
Tajikistan	Farm Privatization	1999	24
Kazakhstan	Agricultural Post Privatization Assistance	1998	24
Moldova	First Cadastre	1998	25
Romania	General Cadastre	1998	37
Azerbaijan	Farm Privatization and Restructuring	1997	29
Kazakhstan	Real Estate Registration	1997	13
Estonia	Agriculture	1996	31
Russia	Land Reform Implementation Supplemental	1994	115
1C. Irrigation and Drainage			
Azerbaijan	On-Farm Irrigation Rehabilitation Project	2004	TBD
Armenia	Irrigation Development	2002	
Georgia	Irrigation and Drainage Community Dev.	2002	25
Romania	Irrigation Rehabilitation	2003	TBD
Uzbekistan	Drainage and Poverty Reduction	2004	70
Uzbekistan	Karshi Pumping Cascade Rehabilitation	2002	114
Azerbaijan	Irrigation and Drainage Rehabilitation	2000	47
Kyrgyz Republic	On-Farm Irrigation	2000	29
Tajikistan	Rural Infrastructure and Irrigation Rehabilitation	2000	24
Albania	Irrigation and Drainage II	1999	41
Kyrgyz Republic	Irrigation Rehabilitation	1998	47
Macedonia	Irrigation Rehabilitation	1998	33
Turkey	Privatization of Irrigation	1998	59
Kazakhstan	Irrigation and Drainage Rehabilitation	1996	118
Armenia	Irrigation Rehabilitation	1995	54
1D. Knowledge and Information Systems			
Bosnia	Small-scale Commercial Agriculture	2003	12
Kazakhstan	Agricultural Support Services	2003	TBD
Belarus	Post-Chernobyl Recovery	2004	TBD
Albania	Agricultural Services	2001	10
Yugoslavia	Farming Support	2004	TBD

Macedonia	Private Farmer Support	1996	10
Georgia	Agricultural Research/Extension Training	2000	15
Romania	Agricultural Support Services	2000	18
Armenia	Agricultural Reform Support	1998	20
Kyrgyz Republic	Agricultural Support Services	1998	30
Georgia	Agricultural Development	1997	26
Croatia	Farmer Support Services	1996	30
Kyrgyz Republic	Sheep and Wool	1996	17
Ukraine	Agricultural Seed Development	1995	63
Uzbekistan	Cotton Subsector Improvement	1995	74
1E. Agricultural and Livestock Quality and Safety Standards			
	None as yet		
2. OFF-FARM ENTERPRISE DEVELOPMENT			
2A. Agro-processing, Marketing and Other Rural Enterprise Development			
Kyrgyz Republic	Agricultural Marketing and Input	2004	TBD
Poland	Wholesale Markets I	1999	16
Poland	Wholesale Markets II	1999	19
Turkey	Commodity Markets Development	1999	6
2B. Rural Finance			
Ukraine	Rural Finance Pilot	2003	TBD
Moldova	Rural Investment and Services	2002	45
Bulgaria	Rural Finance	2003	80
Romania	Rural Finance	2001	291
Uzbekistan	Rural Enterprise Support	2001	46
Albania	Microcredit	1999	23
Azerbaijan	Agricultural Development and Credit	1999	34
Kyrgyz Republic	Rural Finance II	1999	23
Latvia	Rural Development	1999	19
Moldova	Rural Finance	1998	6
Kyrgyz Republic	Rural Finance	1997	21
Lithuania	Private Agricultural Dev.	1996	55
3. PHYSICAL AND SOCIAL INFRASTRUCTURE			
3A. General			
Kyrgyz Republic	Village Investment	2004	TBD
Turkey	Kokyent Village Investment	2003	300
Albania	Community Development Pilot	2002	7
Macedonia	Community Development	2001	7
Romania	Rural Development	2001	100
Poland	Rural Development	2000	301
Albania	Community Works	1999	17
Azerbaijan	Rural Infrastructure	2004	20
Azerbaijan	Pilot Reconstruction	1999	22 (partly rural)
Romania	Social Development Fund	1999	27 (partly rural)
Albania	Rural Roads	1995	34
Latvia	Rural and Secondary Roads	2003	40
3B. Water Supply and Sanitation			
Turkmenistan	Water Supply and Sanitation	1997	34
Uzbekistan	Rural Water Supply and Sanitation	1998	117
Kyrgyz Republic	Rural Water and Sanitation	2002	24
4. HEALTH CARE, PENSIONS, EDUCATION AND SOCIAL FUND			
4A. Health Care, Pensions, Social Safety Net			

Georgia	Social Investment Fund	1998	28
Tajikistan	Post-Conflict Reconstruction	1998	11
Moldova	Social Investment Fund	1999	15
Uzbekistan	Health	1999	76 (partly rural)
Bulgaria	Health Sector Reform	2000	87 (partly rural)
4B. Education and Labor Market			
Turkey	Basic Education	2000	300

* There are 13 education projects under implementation, with total loan amount of US\$667 million; 12 health projects (US\$289 million), and 16 social protection projects (US\$621 million). They are mostly national in scope.

5. LAND, WATER AND FOREST MANAGEMENT			
5A. Land			
Azerbaijan	Shag Day Rural Environment	2004	15
Albania	Natural Resources	2005	10
Armenia	Natural Resources	2002	17
Croatia	Karst Ecosystem Conservation	2002	9
Kazakhstan	Drylands Management	2002	15
Romania	Agricultural Pollution Control	2002	13
Turkey	Anatolia Watershed Rehabilitation	2002	60
Moldova	Dniester Watershed Management	2001	1
Ukraine	Biodiversity Conservation	2001	13
Poland	Rural Environmental Protection	2000	19
Slovakia	Grassland Conservation (GEF MSP)	2000	1
Turkey	Biodiversity (GEF)	2000	12
Georgia	Integrated Coastal Mgt. (GEF/IDA)	1999	9
Regional	Central Asia Biodiversity (GEF)	1999	14
Tajikistan	Rain-fed Agriculture/Watershed Management	2004	20
5B. Water			
Regional	Black Sea/Danube (GEF)	2001-2	50
Regional	Caspian Sea (GEF)	2002	3
Albania	Fishery Development	2002	9
Bulgaria	Wetland Restoration (GEF)	2002	14
Regional	Baltic Sea Management	2003	10
Kazakhstan	Syr Darya/Northern Aral Sea Control Project	2001	100
Aral Sea	Water and Environment Management (GEF)	1998	21
Regional	Albania/Macedonia Ohrid Lake Conservation (GEF)	1998	4
5C. Forests			
Kazakhstan	Forestry Rehabilitation	2004	TBD
Georgia	Forestry	2003	20
Romania	Forest Dev.	2003	40
Georgia	Protected Areas Development (GEF)	2002	12
Russia	Amur Sakhalin Eco. Fire (GEF)	2004	8
Russia	Khabarovsk Habitat Conservation	2001	1
Russia	Sustainable Forestry Pilot	2000	75
Bulgaria	Forestry	2004	40
Romania	Biodiversity (GEF)	1999	9
Bosnia	Forestry	1998	20
Romania	Prototype Carbon Fund Afforestation	2003	10
Croatia	Coastal Forest Rehabilitation	1997	67
Albania	Forestry	1996	17

Russia	Biodiversity Conservation	1996	20
Belarus	Forestry	1994	47
Turkey	Biodiversity (GEF)	2000	9
6. RISK MITIGATION			
Tajikistan	Emergency Drought Assistance	2001	3
Kosovo	Emergency Farm Construction	2000	25
Tajikistan	Lake Sarez Emergency	2000	4
Turkey	Marmara Earthquake *	2000	737
Armenia	Dam Safety	1999	30
Kyrgyz Republic	Flood Emergency	1999	14
Tajikistan	Emergency Flood Assistance	1999	6
Turkey	Emergency Flood Recovery *	1999	685
Poland	Flood *	1998	498
Romania	Flood, Earthquake, and Hazard Mitigation	2004	150
Croatia	Social and Economic Reconstruction	2004	TBD

* Both rural and urban