

# DEVTECH Sphere

DEVTECH SYSTEMS, INC.  
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## *Peru Issues Stamp to Promote Girls' Education*

In the Summer 2001 issue of *Sphere*, DevTech's Dr. Meghan Donahue reported on New Horizons, the USAID-funded Girls' & Women's Education Activity in Peru to which DevTech provides technical support. In March 2002, a national ceremony highlighted the success of the project. One hundred professionals and officers from the public sector, civil society organizations, and overseas agencies attended a ceremony in Lima, Peru, to showcase the final results of New Horizons. The project, initiated by CARE under a USAID-funded contract with the American Institute of Research in 1998, identified and implemented appropriate solutions to girls' education and spearheaded the creation of a national network of 25 government organizations and international donors known as FLORECER.

The ceremony highlighted the significant achievements of New Horizons, most notably the implementation of public policy Bill 1124, the historic law that was passed on October 31, 2001, to promote the Education of Rural Girls and Adolescents. In the

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## **ENVIRONMENTAL IMPACTS OF LAND PRIVATIZATION**

**L**and reform in countries with economies in transition to a market economy is a process fraught with political and practical difficulties. As *The Economist* reported in an article surveying the obstacles to land reform in Russia (June 29, 2002), symbolic breaks with the past are common, but when it comes to land reform, "turning theory into practice will be harder."

The transition countries of Eastern Europe and Eurasia face a number of problems converting state-owned or collectivized land into efficiently managed private holdings. Obstacles to reform include bureaucratic delay, poor legal frameworks for land ownership, and lack of functioning markets to facilitate private investment to modernize infrastructure and equipment. Assisting in the land reform and privatization process is an important mission for many donor agencies in this region, including the U.S. Agency for International Development (USAID).

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While land privatization programs have been implemented throughout the region, few studies assessing the potential or observed environmental impacts of land privatization initiatives have been conducted. Such an assessment is important because anticipating and addressing environmental concerns before they occur is often more cost-efficient than cleaning up later.

In order to fill this knowledge gap, DevTech<sup>1</sup> completed an initial study for the Environment and Natural Resources Division of USAID's Bureau for Europe and Eurasia that surveyed the environmental impacts of land privatization in 15 countries in the region. This study provides one of the first opportunities to document the environ-

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<sup>1</sup> A team of DevTech local specialists prepared surveys on 15 countries based on a questionnaire focusing on issues of interest to USAID. DevTech staff in the United States reviewed these reports to evaluate regional trends and localized concerns.

mental impact of privatizing agricultural and forest lands in Eastern Europe and Eurasia.

The evaluation reveals that the environmental impacts associated with land privatization depend on the level of success of broader national market reform policies, which varies throughout the region. Specifically, the authors find that:

- Environmental impacts of privatization, both positive and negative, are linked to identifiable economic, political, and historical factors.
- Privatization of agricultural lands has increased the number of smallholder farms.
- Privatization of forests is not as far advanced as that of farmland, and many countries continue to keep forests under state control.
- Lack of regulatory mechanisms and functioning markets contribute to negative environmental impacts of land reform.

### **Environmental Impacts Linked to Identifiable Factors**

The environmental impacts of land privatization are difficult to capture in broad terms. Land privatization has been linked both to improved environmental management in some areas and to greater pressures in other areas. More importantly, land privatization is often not the only causative factor in creating the observed impacts.

A primary example is the case of fertilizer and pesticide use. In the past, the state provided pesticides and fertilizers at highly subsidized prices or no cost

to collective farms. Since privatization, these inputs have shifted to a market-based system of distribution, prices have increased, and consumption by private farmers has decreased dramatically. Throughout the region, market pricing for

*Land privatization has been linked both to improved environmental management and to greater pressures.*

these inputs has led to decreased pollution loads from farm run-offs. At the same time, new environmental pressures stem from poor regulation of the pesticide market in Bulgaria and Uzbekistan, where an increased use of banned substances, which are found cheaper on the black market, has been reported.

Another example of environmental improvement brought about via privatization is the reversal of policies favoring wetlands draining. Wetlands and river deltas, many of which were drained during the Soviet era for increased agricultural production, play important environmental roles as natural water purifiers and habitats for fish, plants, and birds. Since 1990, the “reclamation” of wetlands has all but ceased in the countries studied. In some cases, wetlands have even been naturally re-established and marginal agricultural land and pastures have been allowed to return to their natural state, with an associated higher biodiversity.

The bureaucratic process administering privatization and reform, however, has also created new environmental pressures. Secure legal rights to land have been slow to emerge due to inadequate land survey systems creating, as one local expert explains, “virtual properties” with a frac-

tion of new landowners taking physical possession of land. One result of unclear property rights is illegal forest cutting, which has been a problem in Russia, Estonia, and Romania. Lack of transparent rules also opens the door for corruption in the privatization process, resulting in the conversion of agricultural land for unplanned development.

The study also finds that land privatization processes are heavily influenced by pre-privatization land ownership and land use trends. In countries with historical experience of formal ownership or informal use rights, such as Poland and Hungary, the privatization process has moved more quickly and agricultural productivity of private farmers is higher. Farmers in these countries are more aware of the rights and responsibilities of land use and avoid much of the mismanagement associated with collective state-run farms. In countries where nationalization of land occurred, for example Ukraine and Russia, privatization has been slower and the creation of functioning land markets has yet to develop.

### **Privatization of Agricultural Lands Has Increased the Number of Smallholder Farms**

Privatization of agricultural lands has resulted in a significant increase in the number of private farms in many of the countries studied. As mentioned above, Hungary and Poland already had a tradition of private land ownership, with small private farms contributing 30 percent and 75 percent of the pre-privatization agricultural production, respectively. Small farms continue to contribute to agriculture productivity in these countries.

In other countries the change was more dramatic. Bulgaria, the Czech Republic, Slovakia, and Romania, for example, all privatized more than 85 percent of state-owned agricultural lands through restitution to its former owners or via vouchers for small plots. With the exception of the Czech Republic, the plot sizes for farms in these countries are smaller than

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the average in Poland and Hungary. Small plot size and relative inexperience in managing private farms have resulted in reduced agricultural efficiency. In addition, the fragmented nature of these new farms inhibits the effective management of the large-scale irrigation infrastructure that the owners have inherited from the collective era.

Fragmentation of farmland also raises significant environmental concerns, including the potential for the increased misapplication of chemical inputs, decreased efficiency of water use, and increased soil erosion. The impacts of some of these pressures have already been observed in the region. For example, local water pollution problems are reportedly the result of excessive fertilizer use by small-scale farmers and poor storage facilities for pesticides. In addition, massive water losses from old water distribution networks are reported throughout the region.

### **Privatization of Forests Is Not as Far Advanced**

Privatization of forests has not been as far-reaching as that of agricultural

lands. In the case of Poland, this is a result of local “green” groups (foresters, naturalists, and nongovernmental organizations) requesting that the government continue to manage forestland. Other countries that have not privatized their forests include Armenia, Georgia, Kazakhstan, Russia, and Uzbekistan. Privatization of forests was reported mostly in Eastern Europe. The environmental impacts vary from country to country (in some cases, from region to region within a country).

Illegal logging is often thought to be a significant issue associated with privatization. While many countries reported that illegal logging occurred on privatized land, it could not be determined through this study that privatization was the cause. Rather, local authorities’ inability to enforce relevant forestry regulations—on both private and public lands—appears to be the primary cause of illegal cutting. In Russia, for example, where no forests are privatized, illegal logging is also reportedly a significant problem. However, in Albania and Slovakia, which, respectively, have significant cultural and regulatory frameworks surrounding forest management, the problem was not viewed as significant.

### **Lack of Regulatory and Market Mechanisms Contribute to Negative Environmental Impacts**

Much of the observed negative impact of land privatization is exacerbated by the lack of market reform and legislative frameworks in other related areas such as financial markets, environmental legislation, and the enforcement of existing regulations. Poorly developed financial and land markets (for example, access to credit is limited and farmers are unable to mortgage land to secure working capital) create obstacles to capitalizing on the

potential benefits of land privatization. As a result, few improvements have been made to existing irrigation infrastructure, fertilizer and pesticide storage facilities, farm equipment, or farming and forest management practices.

### **Conclusion**

DevTech’s study represented a first look at some of the potential environmental impacts associated with land privatization in transition countries. These impacts are not necessarily the result of land privatization alone but are part of a more complex system of issues associated with transition to a market-based economy.

Programs with the ultimate objective of improving land reform and privatization efforts and reducing potential environmental impacts of these measures, therefore, need to address broader economic and political factors. Based on the findings of the study, it can be expected that potential environmental concerns can be avoided through properly timed market reforms and a well-supported policy and resource management framework.

—Jim McNicholas & J.A. Atchue III  
DevTech Systems, Inc.  
Environmental Practice

DevTech has opened an office in the Dominican Republic to support its program for Improved Basic Education Through Private-Sector Sponsorship of Public Schools:

DevTech Systems Dominicana  
Torre Piantini No. 201  
Ave. Gustavo Mejia Ricart  
Esq. Ave. Abraham Lincoln  
Santo Domingo, Dominican Republic  
Tel: 809/566-1715; Fax: 809/565-6360

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spirit of Peru's commitment to girls' education, Peru's Postmaster General, Luis Barraza, unveiled a new stamp celebrating the National Network for Girls' Education, and presented a copy to the Director of New Horizons, Ana Maria Robles. The stamp honors FLORECER, which means "to bloom" in Spanish. The stamp depicts a flower in bloom on a bright gold background. The central core of the flower and its petals contain pictures of girls at school. Around the petals is written, "If our girls blossom, our country blossoms." The stamp is expected to be released in early 2003.

Established in 1984 by economist Jorge A. Sanguinetti, Ph.D., DevTech Systems, Inc. is a consulting firm that offers technical assistance in the following practice areas:

- Economic Growth and Public Sector Management
- Education and Human Capacity Development
- Environment and Natural Resources Development
- Evaluation and Performance Monitoring
- Gender Integration (Women in Development)

## **DEVTECH**

DEVTECH SYSTEMS, INC.  
1700 N. Moore Street, Suite 1550  
Arlington, VA 22209 USA

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1700 N. Moore Street, Suite 1550  
Arlington, VA 22209  
Tel: 703/312-6038  
Fax: 703/312-6039

9350 Dixie Hwy., Suite PH-1  
Miami, FL 33156  
Tel: 305/666-5150  
Fax: 305/666-5165

<http://www.devtechsys.com>

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