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WRI

DEVELOPMENT

MAKING LEAPS
Local Environmental Action Plans in Central and Eastern Europe
Case Studies of Bulgaria

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By all accounts, Central and Eastern Europe's environmental problems are severe. But they could be cut down to size if the national and local environmental planning efforts now under way could establish mechanisms for sustained and effective environmental management. The challenge is to integrate the information and knowledge currently compartmentalized by source, take diverse and often conflicting interests into account, and respond to social sensitivities and economic constraints with low-cost solutions to environmental problems. In this light, Local Environmental Action Plans (LEAPs) can contribute by breaking down institutional compartmentalization and fragmentation, encouraging public involvement, and integrating environmental planning and management into a broad array of economic activities. In the process, they can also strengthen the network of institutions that "host" these planning activities and help empower civil society.

BACKGROUND

Environmental policy-making and management in Central and Eastern Europe have changed dramatically over the last six years. The development of new legislation, institutions, and instruments for controlling pollution was initially driven by strong public demand for rapid improvement and by the association of environmental degradation with autocratic government. Later, when the initial euphoria had subsided and when economic difficulties and a high unemployment rate became national concerns, environmental protection moved down on the national agenda.

The initial focus on environment, however, has given impetus to the "Environment for Europe" process and to a region-wide endorsement by the national environmental agencies of the Environmental Action Programme for Central and Eastern Europe (EAP/CEE).[1] This program, adopted at a Ministerial Conference in 1993 and re-endorsed at a subsequent meeting in 1995, lays out the framework for setting environmental priorities and launching immediate affordable actions in policy reform, institution-building, and environmental investment. Despite this focus, benefits of low-cost improvements that can be achieved through more effective and innovative policies and institutions have not been fully utilized.

EAP targets donor assistance and provides a framework for environmental action planning and implementation by central and local governments. At the start, attention and efforts focussed mostly on national environmental action plans (NEAPs), but donors and the countries involved have gradually grasped the opportunities that local environmental action presents for improving the environment and reducing the health risks in the region's environmental "hotspots."

A positive new development in the last few years has been the emergence of local environmental initiatives. The 1989 "Round Table Discussions" between political parties in Poland led to the decentralization of decision-making. Local governments in Bulgaria were made responsible for developing local policies for protecting the environment and using "locally important" natural resources. In Slovakia, local governments were charged with controlling non-point pollution sources. Thus, in the aftermath of the events of 1989, central governments transferred wider environmental management responsibilities to local governments as part of a greater, if uneven, move to decentralization.[2]

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Decentralized—regional or local—environmental funds were also formed in the last four years in at least five countries in the region.[3] And though decentralization remains far from complete, more and more local governments are exploring practical approaches to community development and environmental improvement, and the number of initiatives and actions to address the acute environmental problems that plague many Central and Eastern European cities is growing.

Since 1989, the non-profit sector has also evolved under the influence of the region's "return to diversity" following a half century of forced socio-political unity.[4] Various types of non-governmental organizations (NGOs) have proliferated—service providers, local community organizers, and special issue advocates. Although they differ in capacity, method, scope, and mission, they increasingly agree that local initiatives have more impact and enjoy better chances of success than national policy programs. Thus, such national organizations as the Institute for Sustainable Development in Poland, the Institute for Environmental Policy in the Czech Republic, and Borrowed Nature in Bulgaria now sponsor local programs.[5] Meanwhile, some service providers—including ETP Slovakia and TIME-Bulgaria—now build their programs around the environmental management needs of local governments and NGOs.

Combined, these factors have given new impetus to local initiatives over the last few years. In particular, local environmental action planning projects (LEAPs) are being conducted in almost every Central and Eastern European country, and experience in 11 cities in five countries has been documented.[6]

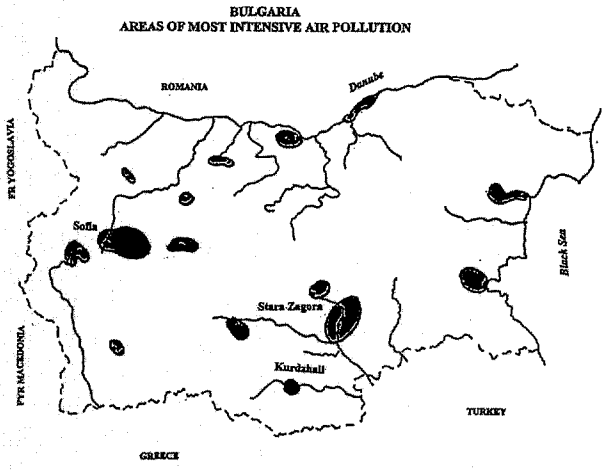
HOW LEAPS WORK

Local Environmental Action Plans (LEAPS) can be one of two types, depending on who hosts them. One type involves strengthening the capacity of regional branches of the Ministries of Environment (MoE) in risk analysis, modeling, risk management, and pollution-control techniques. This is the approach taken in the Katowice and Ostrava Environmental Action Plans.[7] By using more effective and sophisticated techniques, regional MoE-based LEAPs help these agencies build human resources and institutional capacity to execute their current responsibilities. They strengthen the MoE network and its capacity to generate environmental information and to enforce and raise compliance levels—key issues in Central and Eastern Europe. Although they are referred to as LEAPs, they remain an instrumental component of a national environmental action plan (NEAP), rather than an overall local environmental action plan.

Another type of LEAP—widely implemented in urban centers in Poland, Slovakia, the Czech Republic, and Bulgaria—is the fully locally initiated and controlled model. Often its organizational units are committees of stakeholders that include but are not based at the regional MoE branches. In this second group, most of the committees are hosted by a local government or an NGO interested mainly in building municipal programs and public participation. This is the way LEAPs work in the two case study cities in Bulgaria—Kurdzhali and Stara Zagora *(see Boxes 1–7)*. The host institution in Kurdzhali is the local government, which provides a coordinator, office space, and general project support. The co-

LEAPS IN ACTION: CASE STUDIES OVERVIEW

The two cities featured in the case studies that undergird this report number among the environmental "hotspots" in Central and Eastern Europe. Kurdzhali (pop. 120,000) and Stara Zagora (pop. 200,000) are municipal centers with satellite villages and diverse environmental problems. Both have mixed agricultural and industrial economies.



ordinator reports to the Mayor and keeps the City Council involved through either direct representation or regular progress reports. The process is driven by the city and integrated into municipal and City Council responsibilities.

In contrast, in Stara Zagora, the leading local NGO (Ecoglasnost-Stara Zagora) was encouraged by the Mayor to coordinate the project. Although the municipal environmental expert and the Chair of the City Council's Financial Commission are members, Ecoglasnost-Stara Zagora basically runs the LEAP. The institutional host—local government or NGO—influences action plans' focus and implementation opportunities.

Like NEAPs, most LEAPS—local government or NGO-hosted—include environmental and related health-problem identification, analysis and definition, priority setting, identification and selection of options, and the development and implementation of strategies and plans in policy, institutional reform, and investment. The methodology is flexible, and the process is easily adapted to respond to cultural differences, institutional capacity, and other national variables.

WHAT LEAPS CAN DO

The acid test for LEAPs is measurable improvement in environmental and health conditions. Even though most LEAPs have been initiated in the last two years and their impact on environment and health has not yet been evaluated, they have already had other impacts.

LEAPs hosted by local governments or NGOs can relieve many of the operational problems that plague local, regional, and national governments in Central and Eastern Europe. They can engender institutional cooperation, pool institutional data-collection efforts, encourage consensus-building, clarify institutional roles, maximize public participation in decision-making, and chip away at rigid sectoral barriers by supporting environmental improvement across sectors rather than just concentrating on environmental infrastructure projects. Further, local government-hosted LEAPs facilitate the involvement of business in environmental action planning and explore new financing opportunities and schemes.

Institutional Cooperation

Local development and environmental improvement require a common vision, the integration of diverse and complex information and expertise, and collaboration and teamwork among individuals and institutions with diverse backgrounds, responsibilities, and interests. But in Bulgaria, Slovakia, and other Central and Eastern European countries, institutional compartmentalization and a lack of coordination among institutions are fundamental hurdles.

Confusion about lines of authority and responsibility—a confusion long deliberately cultivated—is yielding somewhat to the process of policy coordination by government and inter-ministerial consultations on draft legislation. But formal coordination mechanisms, information-support systems, and integrated decision-making processes are foreign to the various local and central government institutions that operate at city and regional levels. Thus, a local government that lays plans for local development or environmental improvement stumbles into a wall of fragmented information and responsibilities.

Box 1. Kurdzhali Profile

Population:	118,972 (1992 census)
Administrative structure:	Municipal center (the town of Kurdzhali) and satellite villages (118)
Government:	Municipal Council(MC)—elected, approves policies proposed by Mayor Mayor—elected, reports to MC Mayor representatives in the villages—appointed, report to Mayor Administration—appointed by Mayor

Industry:
Lead and zinc smelter; tobacco factory; 2 dairy farms/processing facilities; meat processing plant; 4 timber, marble, furniture factories; 2 clothing manufacturing plants; 6 machines and parts manufacturers; factories for irrigation systems, meters (pressure, etc.), hydraulic equipment, mining equipment, water treatment installations, car parts; 1 mining enterprise.

Agriculture:
Tobacco plantations; potato farms; animal husbandry farms; Forest Committee Branch (responsible for existing forests, reforestation, logging).

Because the subnational branches of national agencies report directly to their Ministries and are not compelled to provide local governments with information there is no lateral information exchange. Since local governments don't have the capacity to develop or analyze complex information on pollution levels, health, and related issues themselves, they are often "flying blind" when they try to identify environmental problems or solutions.

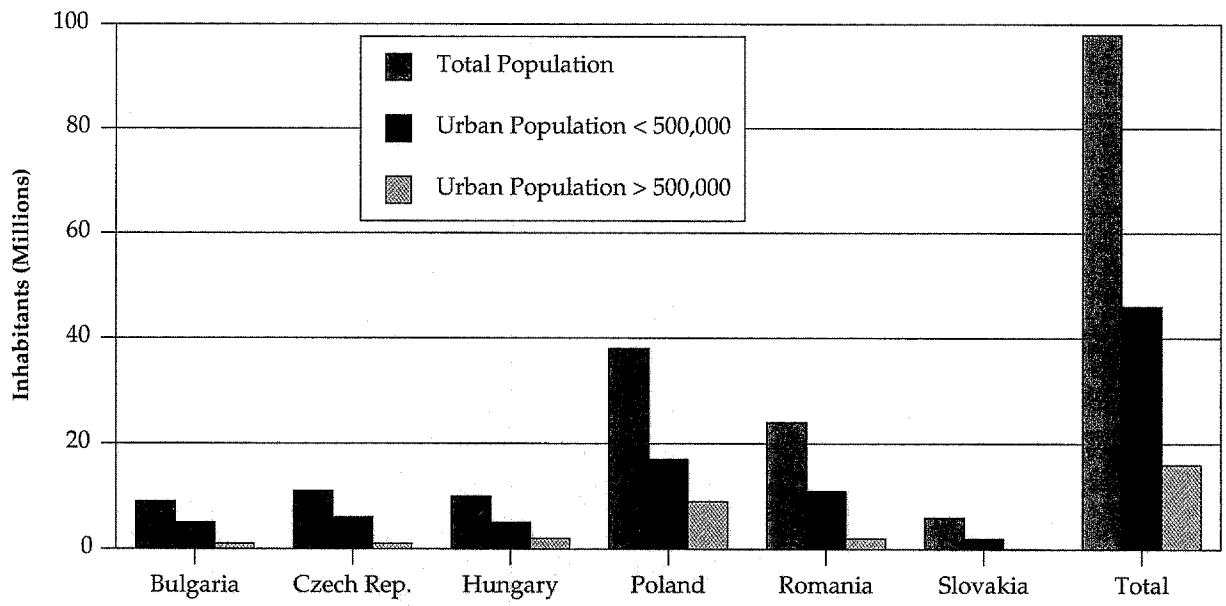
Given these endemic limitations, the multi-purpose committees so integral to LEAP fill a critical need. These more or less permanent bodies bring into close contact experts from agencies and organizations that do not normally communicate, thus building institutional bridges. Indeed, as the Upper Nitra regional working group in Slovakia points out in its evaluation of a regional environmental action project, improved communication can be the most important outcome of such a multi-stakeholder environmental planning effort and an investment in future cost-effective environmental management.

Although LEAP committees can't compensate for faulty or inadequate communication mechanisms *within* institutions, they can create effective networks *among* the

Both in Kurdzhali and Stara Zagora, industry dominates the landscape and is the main source of jobs, prosperity, and environmental and health problems. These problems include airborne pollution in the form of heavy metals, particulates, and SO_2—a priority identified in both cities.

Typical in many respects, these cities are also the most populous in the region and home to the highest relative share of Central and Eastern Europeans. Of the 97 million who lived in Bulgaria, Romania, the Czech Republic, Slovakia, Hungary, and Poland in 1992, some 47 million lived in urban centers of comparable size, with environmental problems much like those of Kurdzhali and Stara Zagora.

Figure 1. Urban population in selected CEE countries, 1995



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World Bank. *Environmental Strategy Study: Bulgaria.* Washington, D.C.: World Bank, Agriculture Operations Division, Country Department I, Europe and Central Asia Region, 1992, unpublished.

participating institutions *(see Box 2: Composition of Committees).* To sustain these networks and strengthen inter-institutional relationships, regional branches of national agencies, as well as local governments, should institutionalize their participation in the committees. This way, their representatives will gain institutional support while the participating entities can internalize the benefits of cooperation in local environmental planning. The implications for implementation will be significant, too. Solutions to today's severe environmental problems are not within the competence or the capacity of a single institution and depend on measures and behaviors of a wide range of stakeholders. As the examples of Stara Zagora and Kurdzhali indicate, by internalizing collaborative inter-institutional environmental planning, participating stakeholders can develop and implement plans that include a breadth of mutually-supportive actions ranging from enforcement and monitoring to education and outreach to incentives and investments. *(See Boxes 5, 6, 7.)*

Information and Consensus on Environmental Problems

The first meetings of the committees in both Kurdzhali and Stara Zagora revealed that no agreement or understanding existed among institutions, organizations, and individuals about what the city's or region's environmental problems were, much less what caused them, what to do about them or who should be responsible. Thus, the first order of business for the committees and the working group was collecting, integrating, and organizing scattered environmental and health data for a fuller analysis of environmental problems (and in some cases, their health impacts).

Collecting previously fragmented and compartmentalized data and identifying new data sources proved to be a cost-effective way to increase the information support for analysis, which in turn led to a better understanding of local environmental problems. *(See Boxes 3 and 4.)* The committees identified information and methodological gaps and inconsistencies so as to evaluate the monitoring practices of various institutions and the adequacy of the information support. By pinpointing the gaps, pooling environmental and health data, and tailoring it to local or regional decision-making needs, the multi-stakeholder committees also built consensus among experts and representatives of the public on local environmental problems and provided a foundation for informed priority-setting[8] and future action.

Business Engagement

With privatization and market reforms well under way in Central and Eastern Europe, the importance of involving business in NEAPs and LEAPs has been recognized by environmental decision-makers in these countries, even though the economic decline, the related problems of unattainable standards and poor enforcement, and the rocky transition from state-owned to private enterprise

Both cities had a history of environmental planning. Stara Zagora had a pre-1989 environmental plan, which listed the need for treatment systems at industrial facilities. Huge investments were called for, and the assumption at that time was that the state would make them. But this plan did not identify problems nor did it set priorities.

More groundwork was laid in local environmental action plans by the Ministry of Environment in 1992 and completed in early 1993 as a follow-up to the National Environmental Action Plan that the Ministry had approved in 1992. Kurdzhali and Stara Zagora were among the three cities targeted for experimental environmental action planning. Developed by a small team within the Ministry, these plans were never completed or formalized. Yet, the plans did provide a useful overview of the environmental problems in each target city.

Meanwhile, both the Kurdzhali and Stara Zagora local governments and environmental NGOs were doing their best to alleviate perceived and real environmental problems. The Kurdzhali local government had requested and obtained air-monitoring equipment from the Ministry of Environment and was negotiating funding for a waste-water collector. Local pressure from the Front for the Salvation of Kurdzhali had forced the management of the lead and zinc smelter located within the city limits to install filters and thus reduce lead emissions.

In this context, LEAP development started in 1993 in Stara Zagora and a year later in Kurdzhali. In both cities, stakeholder committees hosted respectively by the Kurdzhali local government and Ecoglasnost-Stara Zagora serve as LEAPs' organizational units.

The committees in the two cities collaborated with professionals or directly participated in the extensive risk analysis in Kurdzhali and the comparative risk analysis in Stara Zagora. *(See Box 2)*

Box 2. Composition of Committees

Stara Zagora
Committee
Host Institution:
Ecoglasnost-Stara Zagora (NGO)
Local Government
City Council
Regional Inspectorate
Health Inspectorate
Municipal Solid Waste Utility
Hospital
High School
The Society for the Protection of Birds (NGO)
Water Utility
Peace Corps
The Association of Municipal Environmental Experts
Municipal Environmental Fund Board
The Computer Center
The Institute of Physics

Kurdzhali
Committee
Host Institution:
City Government
Municipal Environmental Expert
Local government representatives in satellite villages
City Council
Regional Inspectorate
Health Inspectorate
Lead and Zinc Smelter (local industry)
High School
Ecoglasnost (NGO)
The Society for the Salvation of Kurdzhali (NGO)
Water Utility
The Regional Branch of the Forestry Committee
"News of the Day" (local newspaper)

keep industry from investing heavily in environmental protection right now. Although local governments have no experience in engaging business and industry in environmental improvement and no authority to request compliance, business practice is influenced by regional environmental agencies and local environmental groups, both of whom sit on the LEAP committees.

So far, however, LEAPs have not attracted much business involvement. But in two cases—Kurdzhali in Bulgaria and Upper Nitra in Slovakia—the partnerships have gelled. In both, government (local in Kurdzhali and regional in Upper Nitra) served as the LEAP hosts. Also, involvement in planning helped clarify industry's issues and problems (in Upper Nitra, the need for integrated data for clear definition of environmental problems and priorities and for phasing-in compliance requirements accordingly; in Kurdzhali, the need to resolve pre-existing conflicts between industry management, on the one hand, and NGOs, local government, and the public on the other). Business involvement also opened communication channels and made more data available for problem definition. Business representatives shared environmental data collected for self-monitoring, helped identify their industries' contribution to ambient pollution, raised questions related to risk analysis, and helped pinpoint health problems (caused by workplace contamination) that otherwise would probably have been ignored.

Its participation in the two cases indicates industry's growing concern and sensitivity to compliance requirements and public pressure; its motivation to engage in a dialogue initiated by government (but not by NGOs); and, even though it is in no way controlled by or accountable to local governments for the pollution it causes, its clear stake in the LEAP process.

Organization Efficiency and Responsibility

The roles and tasks assumed and performed by the local institutions collaborating in or hosting a LEAP influences which skills they develop and how likely the LEAP is to become a sustainable process for improving environmental management. In this context, a key question is whether the participating institutions can be expected to perform tasks for which they are well qualified but which are outside of their scope of work and job descriptions. In neither of the two case-study cities did the participating experts from the Regional Environmental Office or the Health Office receive support from their institutions in analyzing environmental and health data. Nor was any institution ready to design implementation plans or conduct cost-benefit analyses of the proposed options for addressing environmental problems. Indeed, a standing issue throughout the projects in both cities was who would conduct the diverse risk, technical, cost-benefit, and other analyses, how much time and effort the volunteer members of the committees could be expected to put in, and how much they could really deliver.

In Stara Zagora, committee members ended up doing most of the work themselves, but a consultant was hired to analyze air pollution and related risks. As a result, the portfolio is unbalanced: some of the problem

Box 3. Summary of Environmental Priorities and Associated Health Risks in Kurdzhali[a]

At public hearings and through questionnaires the Committees solicited public opinion and set the following priorities:

Kurdzhali is defined by the Ministry of Environment as an "environmental hotspot," polluted with heavy metals, SO_2 and particulates (soot). A risk analysis conducted by consultants and experts from Kurdzhali institutions identified pollutants, exposure, pathways, statistically significant health impacts, and pollutant sources and their location in the municipality. Priorities for action were set at a two-day public hearing and later confirmed by a public opinion survey.

STRESSORS AND IMPACTS:

Pb, Cd

Health impacts: malignant and non-malignant tumors, hematological disorders, prenatal abnormalities, joint and bone disorders. Screened in residents of age 0–14 years old (1992, 1995).

SO_2 and particulates

Health impacts: respiratory diseases (1990–93), infant mortality caused by respiratory diseases (1991–1994). Screened in residents of age 0–14 years old.

SOURCES:

Point sources

- lead and zinc smelter
- central heating plants

Non-point sources

- transportation (public and private)
- household heating
- municipal solid waste (particulates)

MEDIA:

Air

- Pb, SO_2, particulates
  Trend: reduction of Pb pollution from the smelter resulting from the installation of retrofitting measures at the facility; increase in the relative share from transportation as a result of increasing number and age of cars and trucks; increase in household pollution as a result of increasing oil and electricity prices and the resulting switch of households to coal as the primary heating fuel.

Soil

- Pb, Zn, Cd
- localized near the smelter
- *Trend:* slight increase of soil pollutants.

OTHER PROBLEMS:

Municipal solid wastes

- generation, collection, and disposal
- landfills occupy considerable land, a limited resource in the municipality,
- resulting leachates in the underground water,
- illegal household and industrial waste dumps (70) located in the municipality, and
- considerable costs to the municipality.

Impacts: dust and particulates cause:

- bacteriological infection especially in summer, and
- general discomfort.

Note

[a] This brief summary is based on the 175-page *Analysis of the Impacts of Environmental Pollution on the Health of Kurdzhali Residents*, EMTC, Sofia 1995, conducted with support from WRI—Washington, D.C. and funding from USAID.

descriptions used to set priorities are very sketchy while the analysis of airborne pollution and its health impacts and risks is thorough and professional. In Kurdzhali, a professional team was hired to collaborate with selected committee members in risk analysis based mostly on available data but supplemented by additional health data from the National Center for Occupational Health, Institute for Soil Research, and other research institutes.

Both approaches yield significant information, but their products are different and can be used in different ways. The professional risk assessment provides a better and more comprehensive basis for priority setting, can

Box 4. Summary of Environmental Problems in Stara Zagora

Airborne pollutant-related health risks[a]

STRESSORS:
SO_2, particulates, Pb aerosols, CO_2, H_2S.

SOURCES:
Transportation
Household and district heating
The Chemical Works and other industries
Municipal solid waste (dust)

IMPACTS (with high statistical significance):
Respiratory diseases, observed in 70.3–77.9 percent of residents, age 0–14 years old;
Pathological pregnancies and births;
Dermatological diseases and allergies, observed in 7.3–16.8 percent of residents, over 15 years old; and
Endocrine gland immunological disorders, observed in residents of all age groups.

SOLID WASTE PROBLEMS[b]

Despite the decline of industrial and agricultural activity, the amount of waste generated by households, industry and agriculture remains stable. The composition of this waste is changing with market transformation: the share made up by packaging materials (glass, plastic, paper, wood) and construction wastes is increasing.

SOURCES:
Household waste: 65% (1.2 m^3/capita per year) of the total solid waste stream
Composition of household waste:
- organic waste: 45%,
- recyclable waste: 20%, and
- other: 35%—much of this is probably construction waste deposited at the municipal landfill.

Grass, leaves: 10% of the total solid waste stream.
Other: 25% of the total solid waste stream
Composition: Primarily industrial and construction wastes.

IMPACTS:
Dust,
Noise,
Discomfort,
Costs to the municipality, and
Epidemics in summer.

Notes

[a] Rossitza Deliradeva, *Risk Analysis and the Impact of Environment on the Population of Kurdzhali;* Stara Zagora, 1994.

[b] The summary is based on problem descriptions developed by the Stara Zagora Committee.

be used over a longer period of time to make decisions and to evaluate changes in environmental quality, takes less time to produce, costs more, strikes a better balance between extensive research and practical information, and requires more sophisticated management skills and a deeper understanding of risk analysis from the coordinator. The less sophisticated environmental problem descriptions developed by the volunteer committee members in Stara Zagora provide adequate information about environmental problems, are easy to understand (and so proved very useful in the public outreach campaign), and help build the commitment of committee members to making the LEAP work. Employing a combination of the two approaches would strike a balance between volunteer and expert input, improve the quality of LEAPs and make them useful over longer timeframes. If based at a local government, a LEAP would increase its skills in facilitating and managing a participatory and expert-driven process for local environmental improvement, while the information and direction generated would guide its programs and ensure support from other actors in the community.

By managing, supporting, and participating in a LEAP, its institutional hosts build new capacity. Ecoglasnost-Stara Zagora gained significant experience in project management and implementation, public outreach, problem identification and analysis, and program development—all of which are needed by the relatively young NGOs in Central and Eastern Europe but can't be used successfully in a vacuum.[9] These skills helped them develop proposals and get external funding for activities that sprang out of their work on the LEAP—environmental education, solid waste management, public awareness campaigns, and "Clean Water" public initiatives. Yet, all the proposals are funded by international sources, and the question remains whether the skills and NGO operations can be sustained without local funding sources.[10]

Based on the ranking, the Committees identified and discussed a wide range of strategies: public-private partnerships, regulations, incentives, education and outreach, recycling, extension services, sectoral projects (transport, heating) and others. Many identified strategies that made sense but the committees felt that they should give preference to such options for action that are within the competencies of the local governments and that do not require huge financing. At the same time, however, they felt that the national framework for some charges and incentives needed to change and the roles and responsibilities of regional agencies, as opposed to local governments, needed clarification.

Box 5. Strategies and Plans to Address Priority Environmental Problems in Kurdzhali[a]

OBJECTIVE:
To reduce dust, heavy metals, and SO_2 to national standards and to alleviate impact on health.

PLANS:
- Adjustment of public and private transportation routes (under development by local government, committee members, and consultants).
- Construction of a public trolley network (approval of development to be made by the City Council, development to be contracted out).
- An energy efficiency program (in development by local government with Dutch assistance).
- Incentives for industry and households to convert to cleaner or renewable fuels (local taxes and incentives to be developed with the assistance of consultants).
- Information to farmers on soil contamination (municipality, Land Privatization Committee, Institute for Soil).

OBJECTIVE:
To reduce the amount of solid waste generated by both households and the construction and mining industry.

PLANS:
- Public awareness campaign (in development by Committee).
- Review and adjustment of pricing, management, and organization of waste collection and disposal (in development by local government, committee members, and utility).

Note
[a] Environmental Action Project, Technical Committee, Kurdzhali, July 16, 1996.

Related issues are the kind of skills institutions build through involvement or coordination of LEAPs and whether these skills are relevant to the participating organizations. For example, the collaboration of the Kurdzhali Regional Environmental and Health Office experts with the National Center for Occupational Health and the Environmental Management Training Center in risk analysis, or between the regional environmental agency and USEPA in the Air Pollution Control initiative, helps regional environmental and health branches develop the skills to improve their performance. The same is true of the experience gained by the Kurdzhali municipal environmental expert in managing the committees and the LEAP, and of Ecoglasnost in public outreach, education and a number of other initiatives which either support or branch out from the LEAP. On the other hand some tasks, while instrumental to the process, do not seem inherently useful to the implementing organization. While preparing the LEAP, Ecoglasnost-Stara Zagora and the committees developed several programs that should have either been contracted out or developed by the local government (e.g., a scheme for improving air quality by modifying traffic management). Although they moved the process forward, they didn't build any skills that might be useful to promote or strengthen the not-for-profit sector in their city. A clear conclusion from the experience in the two cities is that the need to move the process forward should be balanced with the objective of building skills and capacity that can be sustained by the participating organizations and that will prove useful in the future.

Implementation

Given the depth, severity, and diversity of the environmental problems in Central and Eastern European "hotspots" and the limited resources available, rapid or short-term environmental improvement can hardly be expected, especially in Bulgaria where inflation has recently hit an all-time high and economic growth a new low. Indeed, most of these countries recognize that though significant work was done to develop NEAPs and LEAPs,

Box 6. Strategies and Plans to Address Priority Environmental Problems in Stara Zagora

The Committee felt that it could not set specific objectives and targets due to the limited available information. Instead, it chose to propose or develop plans that will help address problems of air pollution and solid waste and support the implementation of the existing municipal plan for a drinking-water treatment facility.

Air pollution:

- Conversion of household and industrial heating to natural gas fueled systems (public-private partnership—established by city government with a private gas distributor; technical plans completed by distributor, establishment of a financing mechanism—in process by city government, national government and US AID).
- Transportation—adjustment of routes, expansion of the public trolley network, conversion of public buses to unleaded fuels (in implementation by city government with funding from municipal environmental fund).
- Air Pollution Control Program (in implementation by the Regional Environmental Office, the MoE with assistance from USEPA)

Solid waste:

- A household recycling program (analyses to be completed by utility).
- Improvement of the organization and management of solid waste collection and disposal (in implementation by utility, pricing still being considered in connection with recycling).
- An environmental education program (in implementation by Committee, schools, and hospital).

Drinking water:

- "Ecovolunteers for clean water" project (in implementation by Ecoglasnost-Stara Zagora)

"implementation is still to come."[11] However, some are going forward now: Stara Zagora and Kurdzhali started implementation even before all of the plans were completed. In fact, Stara Zagora never developed a full-blown formal Environmental Action Plan document, and, though Kurdzhali is currently developing implementation plans, it is unlikely to assemble all the components of a formal document either.[12] Both cities consider moving into implementation more important than completing a final overall plan or developing evaluation criteria and processes. Though they might save time now, the absence of a formal plan document or evaluation criteria and processes might create obstacles or require additional effort later.

The strategies for implementation adopted in the two cities have seven elements in common.

1. They require relatively small investments for implementation and many of the strategies integrate environmental objectives in sectoral plans rather than concentrating solely on environmental infrastructure projects *(see Boxes 5, 6, 7)*;

2. Solutions are based mainly on changing behaviors and lifestyles, not end-of-pipe fixes;

3. Investment strategies are supported by "soft" initiatives such as environmental education, public outreach, and information which are expected to change attitudes over time;

4. They include improved management, adequate pricing, economic incentives, and national and local regulatory measures;

5. The support and intervention of national agencies is needed to implement certain components of the plans, especially the ones that require new financing, pricing and management structures;

6. Most technical solutions require adjustment of policy or establishment of new organizational structures. (In Stara Zagora, the local government's technical plans to convert domestic heating to natural gas requires creating new financing mechanisms and management schemes, which in turn call for a national policy framework); and

7. Most of the environmental strategies involve resource substitution, reduction of resource use, and better management of resources and utilities. Resource conservation strategies, however, either faced difficulties or were rejected. Troyan, another Bulgarian municipality, selected water conservation to alleviate water shortages and it took significant effort and time to address institutional obstacles and move into implementation. Stara

Box 7. Joint Stara Zagora/Kurdzhali Municipal Environmental Experts Association Strategy

Both in the planning and implementation phases, the two Committees and local government members felt that:

- the fast-changing environmental and local government legislation and responsibilities,
- the recently introduced position of municipal experts, and
- the new local government structures

create a great deal of confusion, and make roles and responsibilities unclear. On the other hand, local governments and other subnational institutions can successfully contribute to solving environmental problems if their responsibilities are clearly defined, especially in planning and enforcement. To address this, a working group was formed with representation from Stara Zagora, Kurdzhali and the Bulgarian Association of Municipal Environmental Experts. This group reviewed regulations and draft legislation, examined local government structures and their reporting and decision-making procedures in three municipalities, as well as their procedures for vertical and horizontal communication and public solicitation. Based on their analysis they developed recommendations for regulatory and institutional reforms which would support the work of local governments, and a guide which local governments can use to improve their performance. A national task force was also formed to reflect the national agencies' perspective on the analysis and recommendations.

Outputs:

- Overview of municipal responsibilities in air pollution management;
- Legal framework for the formation of associations by municipalities or their executives and employees;
- Case study: Kurdzhali municipal institutional capacity to meet its responsibilities in air pollution abatement;
- Case study: Stara Zagora municipal institutional capacity to meet its responsibilities in air pollution abatement;
- Discrepancies and gaps in current legislation on municipal responsibilities in air pollution control and abatement;
- Proposals for interpretation and amendment of some text of the draft clean air act—National Task Force discussion paper;
- Public participation and local government authority in environmental management (local regulations—scope and principles);
- Local Environmental Action Planning: The Case of Stara Zagora;
- Public policy: steps, scope, components—paper;
- A framework for a municipal management structure.

Zagora considered and rejected an energy-efficiency program as a way to reduce air pollution from domestic sources.

Confusion about institutional responsibilities and management options for resource conservation were encountered in Troyan and anticipated in Stara Zagora. These difficulties and obstacles are not surprising since Central and Eastern European countries were until recently geared to increase output no matter what the cost in resources. This lack of institutional experience with conservation policies will continue to work against projects that cannot easily fit into the old institutional schemes, that call for any solutions besides those at the end of the pipe, or that require new institutional authority and policy frameworks—the very projects that the Environmental Action Programme for Central and Eastern Europe promotes.

In the case-study cities, many of the initiatives and plans, especially the ones that did not require central government intervention and can be financed locally or by external donors, are moving smoothly into practice. Stara Zagora is implementing a new transportation-management plan, an environmental education project, and the components of the solid waste plans that are within its competence. Kurdzhali is reviewing its institutional structure, developing local regulations, adjusting traffic routes and developing an energy efficiency program with a Danish donor. It is also considering a program to disseminate information to farmers from satellite villages about heavy metal contamination levels and the kind of crops they can safely grow on their land. By moving into implementation, both cities are addressing existing problems immediately—some of them high priorities—at reasonable costs and often with on-the-spot resources. In implementation, too, the cities are building cross-institutional bridges and

partnerships. One example is the Stara Zagora attempt at a public-private partnership for conversion to natural gas. Other examples are the working relationships between the Stara Zagora hospitals, Ecoglasnost, and schools in raising awareness about the health risks associated with environmental problems; or the collaboration between the Kurdzhali local government, the Land Privatization Committee, and the Soil Research Institute in Sofia in providing information to farmers.

Financing

Many of the implementation strategies devised in Kurdzhali and Stara Zagora could be financed by local sources. In theory, municipal budgets are an option, but they are so inadequate and so tightly controlled by the Ministry of Finance that cities cannot be expected to expand budget funds for environmental improvement. Nor are such local revenues as property taxes on real estate and vehicles, or charges for solid waste collection, sewage treatment, and other services currently used for environmental improvement, though LEAPs in both cities call for channeling such revenues in this direction. The only other local environmental financing sources for Bulgarian municipalities are the Municipal Environmental funds,[13] most of which are also small.

Contrary to initial expectations by some Central and Eastern European countries, both donors and in-country decision-makers are increasingly aware that the main financing will probably remain domestic.[14] Besides gradually growing private investment,[15] the National Environmental Funds (NEFs) that have been founded in many countries in the region over the last five years[16] and the state budget are the two main national environmental funding sources.[17] Yet, NEFs and budgetary spending aren't enough to address the serious environmental problems that have been building for decades, so local sources or new financing schemes are of growing importance.

In Estonia and Poland,[18] as well as in Stara Zagora's conversion-to-gas project, cities are exploring partnerships, mixed financing from several sources, and a combination of grant funds and financing.[19] Here, project scale influences national involvement and, consequently, the chances for success.

The cited projects in Estonia and Poland receive government and donor funds, enjoy sovereign guarantees and, consequently, involve strong central government participation in project management. In Stara Zagora, the project is of a different scale—the city planned to finance individual energy users with a grant from USAID so that they could convert to natural gas. The financing scheme devised was to be managed by the local government without significant central government involvement in direct fund management. But regulatory obstacles that only the central government or Parliamentary intervention can resolve have kept grant funds tied up.

In both Kurdzhali and Stara Zagora, numerous issues require national support or intervention. Among these are risk analysis, municipal financing mechanisms, cost-based pricing of solid waste collection and disposal, communication and coordination among the Regional Environmental Inspectorates and the local governments, clarification of local government roles in Environmental Impact Assessments, property and personal taxes and incentives for vehicle owners, standards for natural gas supply to buildings, management and accounting by municipal utilities, and management of local earmarked financing. Obviously, the diversity of issues requires intervention from various national agencies, but mostly from the Ministries of Environment, Health, and Finance.

Central governments' responsiveness to these diverse needs varies. Some technical issues—for instance, the draft legislation in which the Ministry of Environment set technical, safety, and liability standards for natural gas supply—received prompt attention. Other issues, related mainly to taxes, utility charges, and other economic instruments and thus to local ability to raise revenues, remain controversial and the likelihood of a prompt solution is scant.

In most transition economies, public finance laws make it difficult for municipalities to raise or manage revenues,[20] largely because the Ministries of Finance refuse to give up control over public funds.[21] Yet, as long as local government and other implementing agencies cannot manage their own program funds, cannot raise and earmark revenues, and cannot establish schemes for sharing costs with households and small and mid-size businesses, the implementation of local environmental plans will be at risk. Sorely needed are flexibility, management capacity and fiscal authority, and control commensurate with local government's growing responsibilities.

CIVIL SOCIETY'S AGENDA

Public Participation

Stakeholder involvement through the LEAP committees helped address such environmental planning issues as institutional cooperation, information support, and the involvement of large polluting industries in decision-making. It also helped address another issue only indirectly related to LEAPs: building civil society.

Sustaining the newly emerging democracies of Central and Eastern Europe will depend on building ***autonomous centers of power*** that promote accountable

and participatory governance.[22] Translated into action, this means strengthening local governments, making them accountable to citizens, opening lines of communication among all stakeholders, soliciting citizen or stakeholder input in resolving local problems, and supporting active local NGOs. Support for coalitions or horizontal associations on issues of public concern can drive more strategic reforms.

LEAP committees boost civil society in many ways. They strengthen the "host" institutions, open communication among participating institutions and organizations, allow many institutions to interact with the public in environmental decision-making, empower participants, become centers for local environmental decision-making, and help rebuild the long-lost sense of community.

LEAPs also contribute to the civil society's agenda through extensive outreach campaigns and strategies that ***promote public participation and accountability.*** In both case-study municipalities, committees emphasized informing the public, soliciting its opinion, and involving it in selecting environmental priorities. Both distributed environmental information through the press, public opinion surveys, action days, displays, and particularly effective public hearings. The Stara Zagora Committee published environmental problem summaries in all local newspapers, ran a weekly environmental column for more than a year, published brochures, and had volunteers go door to door to get a reading of public opinion on environmental priorities and to gauge residents' willingness to contribute work or money in addressing them. In Kurdzhali, a reporter is a committee member, while in Stara Zagora, a LEAP committee member is responsible for media liaison.

Still another component of public participation is ***team-building.*** Fifty years of top-down decision-making in an environment where disagreement and diversity of opinion were rarely tolerated have bred intolerance and defensiveness. The management of the lead and zinc smelter for years fought with the Front for the Salvation of Kurdzhali before they clashed at a committee meeting. Discussions on air pollution triggered accusations that grew heated and led to personal insults. It took time and effort from the rest of the Committee to move the discussion from who is right or wrong to what the issues are and what can be done. In other instances, some members simply withdrew from the discussion when others disagreed with them. But, gradually, the need to respect certain mutually acceptable rules and to contribute helped overcome ill will and inertia.

In Central and Eastern Europe, NEAPs and LEAPs evolve within a national ***leadership*** vacuum that is mirrored by a much worse one at the local level. Pre-1989 central governments passed down decisions, funds, and plans for local development, leaving little room for local and community leadership. The omnipotent and unresponsive centralized state bureaucracies, the dislocation of people and intensive migration of the 1950s and 1960s from villages to cities, the extensive concentration of populations around industrial centers in the 1970s, and other facets of the pre-1989 system destroyed people's sense of community, emptied local governance of meaning, and left communities and local governments with few leaders and little capacity to identify and manage local problems. Now, cities and communities need local leaders to improve environmental conditions and address long-standing problems. A LEAP process can help build leadership by providing a social and working environment, a direction, a method, and a purpose.

LEAPs for Women

Until 1989, Central and Eastern European countries had fixed quotas or proportional representation of women in decision-making bodies. In most cases, the quotas were strictly observed for what were defined as "collective bodies"—Parliament and City Councils, but not in the powerful executive branch of government and the Communist Party structures.

Today, the "gender issue" is re-emerging. Fewer and fewer women can be found in the decision-making and representative bodies. In the two municipalities under the spotlight here, no Mayors or Deputy Mayors are women, only 5 of the 45 members of the City Council in Kurdzhali are, and only 11 women-councillors number among the 51 that make up the City Council in Stara Zagora. In both cities, most of the roles for women are on the committees that identify problems, set priorities, and plan action. Of the 26 members of the Kurdzhali Committee 15 are women, while in Stara Zagora approximately half of the 36-member Committee are. In Kurdzhali, the coordinator is a woman whose involvement in the LEAP has made her a community environmental leader and catapulted her into national discussions on the relative roles of city and national governments in environmental management. Whether managed by the local government or a local NGO, LEAP committees promote women's involvement in decision-making and action and give some with latent talent the chance to become leaders.

CONCLUSIONS

LEAPs are just unfolding in Central and Eastern Europe, so conclusions about their wider implementation are premature. But experience from the last few years indicates that they promote democratic decision-making, as well as mobilize local environmental improvement efforts. How well and effectively depends ultimately on

whether plans are implemented and updated and on whether the process is repeated over time as needed, as well as on whether LEAPs are replicated in "hotspots" other than the demonstration cities.

Obviously, one institution can hardly be expected to perform all the diverse and complex tasks that a LEAP involves—from risk analysis to estimating costs and benefits to drawing technical plans to public outreach. Whether LEAPs can be sustained thus ultimately depends on whether the "host" institution can manage the process rather than perform each task, on how well it can integrate interests, information, knowledge and expertise by involving a wide range of stakeholders, on how committed it is to building partnerships, and on how much access it has to the financing needed to implement LEAP-generated plans. As for which type of institutional host works best—a regional branch of the national government, a local government, or an NGO—each has comparative advantages. But local government seems to combine a number of advantages: it is well positioned and equipped to provide neutral ground for stakeholder involvement, to integrate decision-making across sectors, to support inter-institutional linkages, to implement local programs, and, to some extent, to locate financing for program implementation. Another important consideration in picking an institutional host might be its responsibilities to its constituency and the community for local development and the environment. To capitalize on these advantages, local governments need stronger managerial capacity, broader access to local funding, and innovative approaches to financing.

Since success depends on building a network and a process, program implementation and environmental improvement in Central and Eastern Europe should not be assessed solely in terms of investment levels, as it currently is. Institutional and policy reform to support direct investment, intra-institutional linkages, stakeholder involvement and innovative conservation approaches are also important indicators of how sustainable and cost-effective NEAPs and LEAPs are. Efforts that pass these tests are likely to improve both environmental conditions and governance, so donors and CEE decision-makers need to break with convention and think along these lines.

Notes

1. The *Environment For Europe* program began with the first Pan-European Conference of Environment Ministers, which took place at Dobrís Castle, Czechoslovakia, from 21 to 23 June 1991. Subsequent ministerial conferences were held in Lucerne, Switzerland, from 28 to 30 April 1993 and in Sofia, Bulgaria, from 23 to 25 October 1995. The next meeting is scheduled for Århus, Denmark, in 1998.

2. Richard M. Bird, Caroline L. Freund, and Christine I. Wallich, "Decentralizing Fiscal Systems in Transition Economies," *Finance & Development* 32 (September 1995): 31.

3. Regional Environmental Center for Central and Eastern Europe (REC), *National Environmental Protection Funds in Central and Eastern Europe: Case Studies of Bulgaria, the Czech Republic, Hungary, Poland and Slovakia* (Budapest: REC, December 1994), 7.

4. Ewa Leś, *The Voluntary Sector in Post-Communist East Central Europe: From Small Circles of Freedom to Civil Society* (Washington: Civicus, 1994).

5. EPI and ISD help local governments in environmental action planning, and Borrowed Nature has established municipal centers for environmental information and a network of local environmental NGOs.

6. Dan Beardsley, *Local Environmental Action Programs: Case Study of Katowice and Ostrava* (Paris: Organization for Economic Cooperation and Development for the Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, April 1996); Regional Environmental Center for Central and Eastern Europe (REC), *Developing Local and Regional Environmental Action Plans* (Budapest: REC, July 1996).

7. Dan Beardsley, *Local Environmental Action Programs: Case Study of Katowice and Ostrava* (Paris: Organization for Economic Cooperation and Development for the Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, April 1996).

8. Rossitza Deliradeva, *Risk Analysis and the Impact of Environment on the Population of Kurdzhali* (Sofia: Environmental Management Training Center with support from WRI and funding from USAID, 1995). *Health Impacts of Airborne Pollution in Stara Zagora* (Stara Zagora: Stara Zagora Technical Committee, 1995). *Assessment of Drinking Water Quality in Stara Zagora and its Satellite Villages* (Stara Zagora: Stara Zagora Technical Committee, 1995); *Solid Wastes: Description and Impacts* (Stara Zagora: Stara Zagora Technical Committee, 1995). *Soil Contamination* (Stara Zagora: Stara Zagora Technical Committee, 1995); *Stara Zagora Environmental Action Plan* (Stara Zagora: Stara Zagora Technical Committee, 1995).

9. Daniel Siegel, Jenny Yancey, *The Rebirth of Civil Society: The Development of the Non-Profit Sector in East Central Europe and the Role of Western Assistance* (New York: Rockefeller Brothers Fund, 1992).

10. Domestic grant-making foundations and endowments play a marginal role in all CEE countries, but some of them are developing "a contract culture" where local and central governments contract NGO services. In Bulgaria, however, the lowest input to NGO funding seems to come from government—local and central—compared to both other funding sources and funding sources in other countries of the region. Ewa Leś, *The Voluntary Sector in Post-Communist East Central Europe: From Small Circles of Freedom to Civil Society* (Washington: Civicus, 1994), 37,73.

11. Task Force for the Implementation of the Environmental Action Programme in Central and Eastern Europe, *Progress Report on National Environmental Action Programmes in CEECs and the NIS* (Paris: Organization for Economic Cooperation and Development, May 1995), 8.

12. Neither Committee has developed a formal plan but both of them publish and disseminate summaries of their progress. For example, the Kurdzhali Committee has recently published an update on project progress reviewing environmental priorities, options to address them, and the strategies that were selected for the development of implementation plans. None of the Committees, however, has designed an evaluation and assessment process.

13. Municipal Environmental Funds collects 30 percent of the fines, 40 percent of the fees for pollution, and 5 percent of the revenues from privatization of municipal property. It is funding from this source that the Stara Zagora municipality will use to implement one of the options for improvement of air quality—transport management, expansion of the trolley network, and conversion of bus transport to unleaded fuel and gas.

14. Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, *Survey on National Environmental Strategies* (Paris: Organization for Economic Cooperation and Development, 1994).

15. Private investment in environment in CEE is currently estimated by some sources at less than one third of all environmental investment, while government spending accounts for two thirds. Additionally, the line between government-private investment is somewhat murky in some CEE countries, as many enterprises continue to be state-owned. Harvard Institute for International Development, *Impediments to Environmental Investments in Central and Eastern Europe and the Newly Independent States* (Paris: Organization for Economic Cooperation and Development for the Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, May 1995), 2.

16. Regional Environmental Center for Central and Eastern Europe (REC), *National Environmental Protection Funds in Central and Eastern Europe: Case Studies of Bulgaria, the Czech Republic, Hungary, Poland and Slovakia* (Budapest: REC, December 1994), 7.

17. In Bulgaria the ratio between NEF and budgetary spending for environment was 37.9 percent to 62.07 percent in 1994 and 15.1 percent to 85.9 percent in the first half of 1995. In some countries a large share of the NEFs and state budget allocations goes for municipal projects. For instance in 1993 64.8 percent of all financed projects and 63.8 percent of the funds allocated by the Czech NEF went for municipal projects. This is not the case in Bulgaria however. Only 25 percent of the NEF funding for 1994 went to municipal projects, though budgetary funding was considerably higher.

18. *Case Study: Estonia Small Municipalities Environment Project* (Paris: Organization for Economic Cooperation and Development for the Task Force for Implementation of and Project Preparation Committee for the Environmental Action Programme for Central and Eastern Europe, May 1995). *Case Study: Geothermal Energy Project in Zakopane, Poland* (Paris: Organization for Economic Cooperation and Development for the Task Force for Implementation of and Project Preparation Committee for the Environmental Action Programme for Central and Eastern Europe, May 1995).

19. In Zakopane, Poland, financing sources include the National Fund, municipal financing, other domestic sources as well as a combination of international donors: EU PHARE, Denmark, Switzerland, USAID, the Polish Ecofund which was established to manage the debt-for-environment swap, and the World Bank. The ratio between domestic and international sources for this project is 35 percent to 65 percent. In Estonia the financing sources are somewhat different, with external financing from EBRD, NEFCO, and some funding from various bilateral donors covering 52.8 percent of the estimated costs. The two domestic sources are the state budget and municipalities, the latter providing 38.1 percent of the whole investment. The approach was somewhat different in Stara Zagora. Industries were going to finance their own conversion through separate agreements with the distributor. In late 1994, USAID provided an almost $1m grant to be used by the

municipality to establish a loan scheme for conversion of households. *Case Study: Geothermal Energy Project in Zakopane, Poland* (Paris: Organization for Economic Cooperation and Development for the Task Force for Implementation of and Project Preparation Committee for the Environmental Action Programme for Central and Eastern Europe, May 1995).

20. Richard M. Bird, Caroline L. Freund, and Christine I. Wallich, "Decentralizing Fiscal Systems in Transition Economies," *Finance & Development* 32 (September 1995): 31.

21. Harvard Institute for International Development, *Impediments to Environmental Investments in Central and Eastern Europe and the Newly Independent States* (Paris: Organization for Economic Cooperation and Development for the Task Force for the Implementation of the Environmental Action Programme for Central and Eastern Europe, May 1995), 9–10.

22. Gary Hansen, *Constituencies for Reform: Strategic Approaches for Donor-Supported Civic Advocacy Programs* (Washington: U.S. Agency for International Development, Center for Development Information and Evaluation, Program and Operations, Assessment Report No. 12, 1996), VIII, 21.

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