

PJ-ACB-829

Task Order No. 1600-17
Contract No. PCE-1-00-96-0002-00

Czech Republic Energy and Environment Information Dissemination Assessment

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December 1997

Environmental Policy and Institutional Strengthening Indefinite Quantity Contract (EPIQ)

Partners: International Resources Group, Winrock International, and Harvard Institute for International Development

Subcontractors: PADCO; Management Systems International; and Development Alternatives, Inc.

Collaborating Institutions: Center for Naval Analysis Corporation; Conservation International; KBN Engineering and Applied Sciences, Inc.; Keller-Bliesner Engineering; Resource Management International, Inc.; Tellus Institute; Urban Institute; and World Resources Institute

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Contents

Preface	ii
Acronyms	iv
Executive Summary	vi
1. Introduction	1
2. Summary of Phase I Survey Results	3
2.1 Description of Phase I Activities	3
2.2 STEM Analysis of Survey Results	5
2.2.1 General Findings	5
2.2.2 Additional Comments Regarding the Phase I Survey Results	6
3. Comparative Analysis and Lessons Drawn from Review of Information Components of Selected Energy and Environmental Projects	8
3.1 Promoting Policy Awareness and Reform	9
3.2 Education and Training	12
3.3 Demonstration Projects and Information Centers	15
4. Recommendations for Other USAID Missions	20
4.1 Problems in Devising an Effective Information Dissemination Strategy	20
4.2 Necessary Elements of an Information Dissemination Strategy	21
4.3 Optimal Means of Organizing and Disseminating Information	21
4.4 Rewarding Information Dissemination and Aiming for the "Multiplier Effect"	24
5. Endnotes	25
6. References	27

Appendices

Appendix A	Statement of Work
Appendix B	Fact Sheets for Selected Projects
Appendix C	List of Principal Contacts/Interviewees
Appendix D	Phase I Open Questions and Responses to USAID Questionnaire

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Preface

The Project Team greatly appreciates the considerable time and effort—occasionally at the last minute—devoted to this project by many representatives of government, industry, and academia in the Czech Republic. The spirit of openness and cooperation throughout this assessment process allowed the team to maximize time available for discussions and to seek out the most relevant, reliable information within the short time period provided.

The Project Team especially wishes to express its gratitude for the help of officials in the following organizations: Ministry of Industry and Trade; Ministry of Finance; Ministry of Environment; Czech Energy Agency; State Energy Inspectorate; Czech Statistical Office; Czech Environmental Fund; Czech Environmental Management Center; Czech Hydrometeorological Institute; Environmental Training Project (Prague office); Foundation Project North; Regional Environment Center (Prague and Budapest); SEVEN; North Bohemia Economic Association; České Energetické Zavody (ČEZ), a.s.; Prague Power Distribution Company (PRE); ZČE, a.s. (Plzeň); Chemopetrol Litvinov refinery; Energo-Steel Ostrava; Project Teplice; and Project Silesia.

The Project Team also appreciates the comments and input provided by the staff of other organizations inside and outside the Czech Republic, including: Arthur Andersen (Prague); ECON (consulting firm); KNO Worldwide; World Environment Center (Prague); Battelle Memorial Institute; Bechtel Corp.; Center for Clean Air Policy; Central Maine Power; Chemonics International; Electrotek Concepts; Harvard Institute for International Development; Houston Light & Power; Resource Management Associates, Inc.; Sanders International; US Energy Association; University of Minnesota; and World Environment Center (NY).

At USAID/ENI, particular thanks go to Jacqueline De Rosa, who assisted greatly with the study's conduct in her capacity as technical officer for this activity, as well as Robert Ichord, Robert Posner, Ira Birnbaum, Loren Schulze, Jennifer Karp, and Melody Bache. David McCauley and Ian Fitzsimmons of EPIQ/IRG also provided considerable support. The views expressed in this report are those of the Project Team and not of USAID or any of the other collaborators.

Given the limited amount of time devoted to this task, it was not possible to question in detail all of the Czech participants and individuals who are the true measure of whether USAID's advice and information has had a meaningful and lasting impact. The Team also regrets that it was not able to cover each program activity in equal detail. (The Team was fortunate, however, to have the results of a survey of many participants available for its use.)

Such a large effort was also hampered by the coincident closure of the USAID mission in Prague, which limited the amount of available historical material and created some technical and logistical difficulties during the Team Leader's mission to the Czech Republic. If future reports of

this nature are contemplated for other USAID missions in Central and Eastern Europe, it is recommended that work begin at least six months prior to the mission's closure.

Acronyms

CCAP	Center for Clean Air Policy
CDIE	Center for Development Information and Evaluation
CEZ	Česke Energeticke Zavody
CMP	Central Maine Power International Consulting
DOE	Department of Energy
EAPS	Environmental Action Program Support
EBRD	European Bank for Reconstruction and Development
EEN	Emergency Energy
EIA	environmental impact assessment
EIS	environmental impact statement
ELI	Environmental Law Institute
ENI	Europe and the Newly Independent States
EPA	Environmental Protection Agency
EPC	energy performance contract
EPIQ	Environmental Policy and Institutional Strengthening Indefinite Quantity
ESCO	energy service company
ESR	Energy Sector Regulation
ETP	Environmental Training Project
GIS	Geographic Information System
HIID	Harvard Institute for International Development
HL&P	Houston Light and Power
IEP	Institute for Environmental Policy
IRG	International Resources Group
IUCN	World Conservation Union
JI	Joint Implementation
MOIT	Ministry of Industry and Trade
NBEA	North Bohemia Economic Association
NGO	non-governmental organization
OECD	Organization for Economic Cooperation and Development
PNL	Pacific Northwest Laboratories
PRE	Prague Power Distribution Company (Prazska Energetika, a.s.)
R&D	research and development
RMA	Resource Management Associates
SEVEN	Czech Energy Efficiency Center
SFZP	Czech State Fund for the Environment
STEM	Středisko empirických výzkumů
TRI	toxic release inventory
TTN	Technology Transfer Network
UCON	Utility Consultancy
UPP	Utility Partnership

US	United States
USAID	United States Agency for International Development
USFCS	United States Foreign Commercial Service
USEA	United States Energy Association
WEC	World Environment Center
WMP	Waste Minimization Project

Executive Summary

This report makes a general assessment of the quality, depth, and relevance of the nearly 200 demonstration projects, conferences, workshops, presentations, work training, study tours, and other means by which USAID and its contractors have provided advice and information to Czech energy and environment officials, specialists, and practitioners over the last seven years. The report relies primarily on direct input from the recipients of this assistance to make such an assessment.

Based on analysis of a previously conducted survey of program participants and individual interviews carried out by the Project Team, the report shows that USAID provided valuable information on how energy is efficiently produced and used and how the environment can be protected in a market economy. Among the major accomplishments achieved through USAID-supported information activities are:

- **Improved planning capabilities** within the Ministry of Industry and Trade, the Ministry of Environment, the state electric utility, ČEZ, a.s., and several regional power distribution companies.
- **Better understanding of the principles of energy price regulation**, paving the way toward new price structures aimed at covering costs and reducing subsidies.
- **Greater clarity in energy and environmental legislation** dealing with the business of producing, distributing, and using energy resources.
- **Stronger financial and managerial skills** within the major electric utility (ČEZ, a.s.) as well as within other energy companies and environmental organizations.
- **Designing of environmental impact assessments** as part of the country's growing commitment to prevent pollution and environmental degradation.

Based on the lessons learned in the Czech Republic, the report searches for the best means and methods to disseminate information on energy and environmental activities within context of broader assistance within these sectors. With an eye toward future USAID activities, the report recommends to:

- ***Make Information Dissemination a More Integral Part of Assistance Strategy.*** Information dissemination strategies were not always sufficiently developed and integrated into USAID-supported energy and environmental activities in the Czech Republic. Even if a project is primarily designed to assist a single company or narrow group of individuals, valuable lessons can be shared both in-country and with USAID staff in Washington. An information strategy should at least be on the checklist of

issues contemplated at the outset of a activity. It may also be stated as a specific contractual requirement in activity work plans.

- ***Ask Contractors About Their Own Plans for Information Dissemination.*** When finding and hiring consulting firms and other organizations to work on energy and environmental activities, one of the first questions USAID should ask is whether these organizations have a *system* for organizing and disseminating explicit information (including sharing information with other contractors, as appropriate). The extent to which USAID and its contractors have thought this process through is perhaps more important than any particular means of getting the word out.
- ***Make Information Dissemination as Multi-Dimensional as the Information Itself.*** The optimal means of disseminating information may well be “all of the above.” For any given project, various forms of contact with the recipients of information are needed, ranging from: (1) large, informal meetings to receive input from participants on their information needs and to clarify interpretation of advice; to (2) formal presentations to share more detailed or technical information; to (3) creation of a common electronic library to ensure that information and data is consistent and widely available; and/or to (4) designation of a local liaison officer within USAID or its contractor (with project expertise) to provide informal help at almost any time.
- ***Push Information That Can Help People Make Management Decisions.*** A highly effective strategy for disseminating new approaches to energy conservation and environmental protection is to improve management, financial, marketing, and other such skills of local participants. Without a clear vision of how information serves the management and economic needs of an organization, an information dissemination plan could easily become a monument to an idea that generates little interest or use.
- ***Look for New Ways to Make USAID’s Information Dissemination Activities Stand Out Among Donors.*** Czech government and industry officials have been deluged with energy and environmental advice from many donors, making it difficult to know whom to credit for good information. Promotion of USAID’s existence can be enhanced through efforts such as: (1) requiring contractors and grantees to put USAID logos on their official communications; (2) ensuring that information databases include USAID contact information; and (3) assigning USAID staff to make informal follow-up calls/visits to local recipients (at least once a year) to inquire what they have done with USAID-supported information.
- ***Be Prepared to Share Not Only the US Experience with Energy and Environmental Policies and Programs But Also Those of Other Market Economies Around the World.*** Comparing the extremely complex and administratively burdensome regulatory system in the United States with the demands of a small, inexperienced, former communist structure in the Czech Republic created inherent

limitations in the information provided. A more internationally comparative explanation and analysis of energy and environmental policy models (e.g., in the United Kingdom, Portugal, Chile, and other countries) might enhance the influence and credibility of USAID's assistance.

- ***Put Together a Mix of Rewards and Consequences to Encourage Individuals, Groups, and Organizations to Use and Share Information.*** Information sharing is not simply about training individuals but about helping those individuals train others. However, given the unique cultural factors in the Czech Republic, more ways to reward the documenting and disseminating of information provided by USAID to key participants should be developed. Possible options include: (1) making contributions to an information base part of an employee's performance appraisal; (2) attaching authors' names to documents and measuring use of this information; (3) getting senior management to acknowledge staff contributions and sharing of experiences; and (4) offering better communication tools through shared software programs.
- ***Capture Relevant Information Through More Advanced Information Technology.*** Many US companies encourage employees to document project summaries, lessons learned, tools, and approaches. Information technology such as electronic mail or an intranet makes this information easily available to staff. There is no reason why a USAID-supported organization (especially one with business motivations) could not attempt to put together such an information directory. The challenge is to encourage and enable all employees to be both producers and consumers of the explicit information.

The USAID assistance program has now closed in the Czech Republic, and the report also attempts to draw some lessons from the energy and environmental work there for how best to ensure that positive impacts will long outlive the period of direct US aid. Summaries of the USAID-supported energy and environmental activities reviewed by the Project Team are included in an annex to this report.

1. Introduction

Since 1989, when the so-called “velvet revolution” ended 40 years of communist rule, the Czech Republic has undergone dramatic changes as the country has moved toward a market-oriented economy and a democratic society. Along with these changes came a new push to wipe out the legacy of inefficient energy use and severe environmental degradation. The centrally planned economy may not have encouraged the Czech people to conserve energy and prevent pollution, but they certainly understood how poor environmental conditions affect their lives.

Between 1990 and 1997, the United States Agency for International Development (USAID) played a significant role in helping Czech government and industry learn about ways to deal effectively with energy and environmental problems. USAID’s program activities—in the form of policy assistance, technical assistance, demonstration projects, and training—have contributed to the development of a new approach to energy and environmental management in the Czech Republic.

Building information dissemination into each USAID-sponsored activity—let alone designing and carrying out a comprehensive information dissemination strategy—is a huge challenge in the Czech Republic (and elsewhere in Central and Eastern Europe). Nonetheless, the positive impact on USAID’s program objectives can be multi-fold:

- Government energy and environmental policy, energy pricing, and privatization decisions can be expedited.
- Energy and environmental technology can be promoted to ensure that the right technology is selected, adopted, and still being used.
- Projects can be more successful at spreading the message on energy conservation and environmental protection.
- Government and private sector institutions can be strengthened to the point where they could promote energy conservation and environmental protection after USAID funding ends.

This report does not assess the effectiveness of USAID’s energy and environmental program activities *per se*. Rather, it seeks to examine only the information dissemination aspects of such assistance. How important the information component was—or perhaps should have been—for any given project varies considerably.

The study has been conducted through a task order under the Environmental Policy and Institutional Strengthening Indefinite Quantity (EPIQ) Contract of USAID’s Global Bureau Environment Center. The Project Team carried out three phases of work under this task order. First,

USAID, Department of Energy (DOE), and Environmental Protection Agency (EPA) staff briefed the team in Washington and in Prague (through phone/fax).

The team also reviewed available materials related to USAID energy and environmental technical assistance activities in the Czech Republic as well as all available materials related to the previously conducted Phase I of this assessment (a program participants' survey). Second, the Team Leader (Pierson) visited the Czech Republic for two weeks, September 2-16, 1997, to interview key Czech officials and former USAID staff. During that time, the Environmental Information Specialist (Scriabine) carried out personal and telephone interviews in the United States and began the analysis of Phase I survey results and related materials. Finally, the Team regrouped in Washington to prepare the draft report and to brief USAID on the major findings and recommendations.

The Scope of Work for this study is included as Appendix A. Overall, the requirements of this study are to:

1. Provide a detailed analysis of the Phase I survey results, including not only a description of the statistical results but also an explanation of the outcome of the survey.
2. Determine the extent to which information dissemination was or should have been part of USAID program activities.
3. Assess the impact of information dissemination on USAID program activities.
4. Determine which means and methods of disseminating information were most successful.
5. Recommend ways to improve information dissemination efforts and to continue these efforts now that USAID is no longer active in the Czech Republic.

The next Section provides a summary of the program participants' survey conducted as a precursor to this assessment. This is followed by a comparative analysis of information dissemination efforts across the portfolio of USAID-supported energy and environmental activities in the Czech Republic. The final Section presents recommendations for the future of relevance to the Czech Republic and elsewhere in the ENI region. While the report cites experience from most of the 18 project activities reviewed, more detailed information on each is provided in Appendix B.

2. Summary of Phase I Survey Results

2.1 Description of Phase I Activities

Phase I of this project was carried out by the Czech research firm STEM, Ltd. (Středisko empirických výzkumů). STEM was hired by USAID in February 1997 to carry out a survey on the impact of information-related components of USAID-supported energy and environmental programs in the Czech Republic during the period 1990-96. Summaries of these programs are provided in Appendix B.

Table 1
Major USAID-Supported Energy and Environmental Programs in the Czech Republic

Energy Programs	Environmental Programs
Emergency Energy (EEN)(1992)	Project Teplice (1992-97)
Energy Projects (DOE)(1992-97)	Project Silesia (1992-97)
Utility Partnership (UPP)(1993-96)	Waste Minimization (WMP)(1992-96)
Energy Sector Regulation (ESR)(1995-97)	Center for Clean Air Policy (CCAP)(1992-95)
Utility Consultancy (UCON)(1995-96)	Environmental Law Institute (ELI)(1992-96)
Technology Transfer Network (TTN)(1995-97)	Environmental Training Project (ETP)(1992-95)
Energy Efficiency in CEE/ Baltics*	Environmental Risk Assessment (1992-95)
Hospital and School Energy Efficiency Demonstration Projects*	Geographic Information System (GIS)(1993-96)
	Participant Training (1993-96)
	Chemical Emergency Preparedness (1995)
	Harvard Institute for International Development (HIID)(1995-96)
	Environmental Action Program Support (EAPS)(1995-97)

*These projects were not included in the Phase I survey.

The Phase I STEM survey also assessed the impact of information newsletters or periodicals related to USAID-supported programs, including the *TTN Newsletter* (produced in connection with the Technology Transfer Network) and the *Bulletin* (linked with the Regional Environment Center in Budapest).

STEM mailed a questionnaire to 2,216 individuals based on lists of participants from nearly 200 conferences, workshops, presentations, work training, study tours, demonstration projects, and other events. USAID and STEM sent introductory letters to these selected respondents, emphasizing the importance of this research and explaining the methods to be used in completion and return of the questionnaire.

A total of 452 questionnaires were returned to STEM. Especially since over 20 projects were involved in this survey, the number of responses represents a relatively low rate of return. Follow-up telephone calls and additional mailings were made in March 1997, with limited impact. Moreover, fewer than half the respondents returned a completed questionnaire.

STEM has suggested several causes for the low percentage of responses:

- Individuals could not recall the details connected with USAID projects.
- Individuals did not have sufficient time to complete the questionnaire.
- The survey method selected—through the mail service—typically generates low returns (averaging around 30 percent).
- The list of participants was outdated (107 surveys were returned due to wrong or inaccurate addresses).
- Events connected with USAID projects took place over long periods of time, lasting anywhere from several hours in a lecture hall to a few months during a study tour in the United States.
- Respondents could not associate the projects under the various designations and working titles assigned by USAID.¹
- A “large portion” (unspecified number by STEM) of project participants said they were instructed by their superiors to attend an event (apparently of little or no interest to the attendees).
- Czech government and industry officials are still not very comfortable speaking openly about their work.

When reviewing the results of this survey, it should be emphasized that this questionnaire primarily addresses the overall success of energy and environmental conferences, workshops, presentations, and other organized events rather than the information dissemination associated with the activity. Nearly all respondents (about 95 percent) took part in either workshops or conferences. In other words, the survey is probably less useful than intended in assessing the overall effectiveness of USAID’s advice and information dissemination activities.

2.2 STEM Analysis of Survey Results

2.2.1 General Findings

No attempt has been made to rank or otherwise compare the quality, depth, and relevance of the individual projects that are the focus of this report in any specific detail. Any ranking that emerges from the statistical results should be interpreted more as a reflection on specific organized events than on the project as a whole.

Some of the projects, nonetheless, receive considerably higher approval ratings than others. STEM notes that the most successful projects (based on the statistical findings alone, and not in any particular order) are: Utility Partnership Program (UPP); Energy Sector Regulation (ESR); Emergency Energy Assistance (EEN); Environmental Action Program Support (EAPS); Geographic Information System (GIS); Environmental Training Program (ETP); and Project Teplice.

Some highlights, according to the STEM survey, were as follows:

Among the **energy projects**, according to STEM, the UPP and EEN projects were valued due to their "high professional quality" (quality of presented materials, abilities and attitudes of the instructors, relevance to the needs of participants, and composition of workshop/seminar participants).

Nearly all the experience and information provided under the ESR project was considered useful in day-to-day activities of the project participants. All participants showed an interest in obtaining access to more information and consider their participation to have enhanced their professional abilities. The "Department of Energy" projects (DOE) received a good evaluation in terms of the organization of events. However, this activity received relatively low marks for practical application of the information provided and the overall usefulness for the participants.²

The Utility Consultancy (UCON) and Technology Transfer Network (TTN) are shown to be the least effective projects, with an unusually high number of respondents indicating that the information provided was of little or no relevance. The quality of materials presented has been described as poor, and fewer than half of all participants consider these activities to have been important to their professional growth.

Of the **environmental projects**, information provided by the ETP and Teplice projects has been used extensively, and overall satisfaction is high. The ETP project in particular has repeatedly helped *all* respondents solve problems at work. Translation problems with the Teplice project created some difficulties, although these are not likely unique to the project.

The survey results are inconclusive about the least effective environmental projects. However, the Harvard Institute for International Development (HIID), the Center for Clean Air

Policy (CCAP), and the Waste Minimization Project (WMP) activities received mixed levels of satisfaction. The quality of materials and information was shown as unsatisfactory and impractical.

STEM also made a limited attempt to assess the methods of disseminating information. In general, workshops and study tours were considered to be the most effective means of disseminating information. Conversely—and quite significantly—newsletters and bulletins are viewed as the least effective means of disseminating information.

In terms of the *TTN Newsletter*, respondents said that a) the level of material was insufficiently detailed; b) the quality of translation could be improved; c) information should concentrate more on technology as it relates to industrial restructuring; and d) issues should be devoted to specific themes. In terms of the *REC Bulletin*, there was a general call for more commercially useful information and for more connection with local problems (see Appendix D for more detail).

2.2.2 Additional Comments Regarding the Phase I Survey Results

Despite the potential to read too much into the statistical results from this survey, a few general conclusions that are of direct relevance to the Project Team's Phase II analysis can be reached:

- ***Overall satisfaction with the information-related events (seminars, workshops, work training, study tours, and presentations) associated with USAID's energy and environmental activities is high.*** Information from abroad, new approaches to solving problems, and contact with foreign experts are listed as the most important aspects of the projects with the greatest personal benefit.
- ***Overall recollection of the projects remains mixed.*** This can likely be attributed to the fact that these projects have taken place over many years, with other bilateral and multilateral donors involved in similar activities. It may also suggest some problems in leaving a lasting impression on participants, perhaps due to materials that were not specifically tailored to conditions in the Czech Republic.
- ***Overall satisfaction with materials and information presented is mixed.*** The quality and usability of information (in this case, mostly conference/workshop materials) is highly dependent on, among other things, hitting the right audience, speaking and writing in practical terms, keeping a narrow, technical focus, limiting theoretical discussion, and ensuring good translation.
- ***Overall satisfaction with foreign advisors and instructors is high.*** Teaching ability and depth of knowledge of instructors, with some exceptions, was well respected. Contact with foreign experts is also rated as very important to Czech participants.

- ***The ability to use advice, information, and experience in individual work activities is mixed.*** One possible clarification: *interest* in using information is high; understanding of how to *apply* the information in practice is low. Projects that were able to bridge this gap are likely to have been the most effective. Notably, these projects tend to be focused on training and technical assistance rather than broader educational and awareness efforts.³

- Recommendations for the future are almost universally consistent among respondents: ***offer practical advice and information*** (see Appendix D).

3. Comparative Analysis and Lessons Drawn from Review of Information Components of Selected Energy and Environmental Projects

The Project Team has been asked by USAID to answer a number of questions related to each of the energy and environmental projects that were part of the Phase I questionnaire and survey. These questions are as follows:

- Was an information dissemination strategy developed after the initial start-up of the program? If so, when? If not, would this have been possible, and when would it have been appropriate? Would this information dissemination strategy have increased the impact of the USAID assistance? How?
- How was the target audience chosen for dissemination of results? Could these methods have been improved upon? If so, how?
- What are the concrete results of the dissemination effort? Provide examples.
- Which mode(s) and method(s) of disseminating results from demonstration projects was most successful? Why?
- What was the most effective vehicle for disseminating information (NGOs [non-governmental organizations], private firms, newsletters, internet, government, etc.)?
- Was the effectiveness dependent on the composition of the target audience? If so, what are the trends? Was the composition of the information different depending on the vehicle and audience? If so, how? If not, should it have been?

Given the wide variety and large number of USAID-sponsored energy and environmental projects in the Czech Republic, it has not been possible to review and analyze every project with the same amount of depth within the one-month contract period. Moreover, many energy and environmental activities have cross-cutting or similar aspects, occasionally making some of the project headings artificial.

This comparative analysis, therefore, takes more of a case-study approach in addressing the above questions. In doing so, it takes an especially hard look at what the Project Team considers to be the key issue: *Are there examples of USAID's advice and information dissemination activities producing beneficial, long-term results?*

3.1 Promoting Policy Awareness and Reform

A carefully crafted strategy to disseminate policy advice and information is important to the success of a project. Such information must be highly sensitive to political developments taking place in the country and adequately coordinated with other donors in the delivery of assistance.

Timing and Coordination Is Key

In early 1992, **Bechtel** teams discussed the possibility of meeting with the Czech Ministry of Industry and Trade (MoIT), the Czech Power Company (ČEZ), and other Czech organizations to provide assistance. Initially, a number of areas were identified (including load forecasting and least-cost planning assistance for ČEZ). However, other international agencies and consultants were already involved (most notably the World Bank and the International Energy Agency). If the USAID contractor had intervened at this point, its work would have been largely redundant.

A study of energy pricing reform carried out by Resource Management Associates, Inc. (RMA), and ICF Resources for the former Czech Ministry of Economy around the same time produced little impact both in terms of educating the target audience and encouraging policy changes. In particular, this study (according to former Ministry of Economy staff) appears to have inadequately explained—in practical terms—the effects of energy price liberalization on industrial restructuring. Nonetheless, this activity did represent an early opportunity to establish contacts within Czech government and industry.

Perseverance Can Pay Off

Timing of information delivery and dissemination is essential to avoid duplication of effort and to remain sensitive to political developments. But it is equally important to show continuity over time in the willingness to offer advice and information. Four years after its initial overtures with the Ministry of Industry and Trade, for example, Bechtel (with **Arthur Andersen**) is playing an influential role in price regulation and new energy legislation.

This project appears to have presented highly useful information from US energy regulatory bodies and experts to Czech officials responsible for pricing and other energy regulation. Ministry of Industry and Trade officials now use the US revenue-requirements methodology, helping the Czech government determine the split of collected revenues between the main power company, ČEZ, and the eight power distribution companies. This split now serves as the base-line for future negotiations among these companies.

The project has also assisted in the preparation of new amendments to Czech energy legislation. These amendments, now pending before the Czech parliament, set forth guidance on a) separation of regulated and non-regulated activities of a utility; b) methods of determining rate of

return on capital; c) impact of inflation on revenue requirements and cost analysis; and d) impact on revenue requirements and cost analysis of future investments in new plant equipment and capacity.

Information Should be Tailored to Local Needs

It can take months—even years—to ensure that USAID, its contractors, and their local counterparts agree with the overall objectives of USAID-supported policy advice and information. Even then, a precise understanding of information needs can be elusive. In the Czech case, US contractors as late as 1996 understood these needs to be (1) to familiarize Czech regulators with the US energy regulatory system, and (2) to determine how certain aspects of that system might be applied in the Czech Republic.⁴

In reality, the Czech government sought (and still seeks) an understanding of a *broad range* of different regulatory structures, both inside and outside Organization for Economic Cooperation and Development (OECD) countries. USAID's information objectives were therefore somewhat narrow. *A more comparative explanation and analysis of energy regulatory models in the United Kingdom, Portugal, Chile, and other countries might have enhanced the influence and credibility (especially at the early stages) of USAID's policy assistance.* Comparing the complex and administratively burdensome regulatory system in the United States with the former communist structure in the Czech Republic created inherent limitations in the information provided.

Building Awareness Can Promote Policy Change

Information on energy price reform provided through USAID-supported projects may not be able to resolve the intense disagreement between the Ministry of Industry and Trade and the Ministry of Finance over who should regulate prices. But it has clearly raised the level of debate by demonstrating how important it is to raise end-user energy prices at some point in the future. The policy debate is no longer *whether* energy prices will be increased but *when*.

Similarly, the high level of cooperation between US EPA and its local counterparts, especially at the municipal level, has heightened environmental awareness and motivated officials to advocate new environmental laws and regulations.

Environmental policy reform has been a major focus of USAID's assistance in the Czech Republic. Information provided by USAID, other US agencies, and their contractors has been essential to promoting better understanding of major principles of environmental management and in the establishment of environmental policy priorities in the Czech Republic. This appears to be especially true in terms of setting realistic goals regarding environmental investments. *USAID's information assistance has helped the Czech government identify the public and private resources available to make environmental investments and to evaluate the costs and benefits of each investment.*

Information provided through USAID-supported programs has helped establish the policy principle making polluters responsible for their production of waste, air emissions, and discharges to water. Czech environmental agencies now have the political support and commitment to this principle from the government. New laws have been passed creating new obligations for polluters. However, enforcement mechanisms remain very weak.

Project Fundamentals Must be Sound Before Expecting Information to Be Useful

Information is not likely to be useful if that information is aimed at the wrong audience or in the wrong direction. Such appears to have been the case with USAID's initial energy audits. USAID's strategy was to achieve results by trying to reach literally thousands of small energy users rather than a few large energy consumers. However, as pointed out by a former Deputy Minister of Industry and Trade, the Czech firms that received USAID energy audits and efficiency investments were *not* heavy energy users (energy amounted to only 5-10 percent of total operating costs, even after energy prices increased).⁵

SEVEN also acknowledges that this was not the most effective approach. Information dissemination was ineffective because:

- Even though USAID intended to provide information to thousands of small energy users, it did so by working with only five plants.
- The capacity for local institutions to disseminate information—through effective media campaigns and other means—was overestimated.
- The country lacks sufficient numbers of equipment suppliers and consultants who are motivated for business reasons to come into contact with energy users.
- There was no dissemination plan to spread *practical applications* of technologies to a wide audience.

It is important to note that since this early activity, *the approach to disseminating information on energy efficiency has evolved, and the institutions created by USAID to provide this information are very strong*. SEVEN is now a well-regarded NGO whose performance stands in sharp contrast to the relatively weak performance of Czech government energy agencies. SEVEN continues to carry out a large number of educational activities. It publishes a monthly magazine, *Energy Efficiency Business Week*, that informs readers about its activities, interacts with government agencies, and helps prepare legislation.

SEVEN has also learned how to package and market energy conservation proposals. It is highly skilled at training others in preparing business plans, feasibility studies, and loan applications. USAID has supported energy conservation agencies elsewhere in Central and Eastern Europe, but

in most cases this has been through government organizations or parastatals. SEVEN stands out as an independent entity that has seen its services and influence continue to expand.

3.2 Education and Training

USAID programs have been successful in transferring leadership and know-how to in-country leaders and in providing appropriate support to carry on training activities. For example, the strategic focus of the **Environmental Training Project (ETP)** project in particular has been on institutionalizing and sustaining the training process in the country and in relating it to events in other target CEE countries.

Newly created environmental businesses in the Czech Republic were provided training to help develop financial analysis skills and prepare environmental impact assessments. ETP was able to establish a broad network of collaborating institutions, such as:

- Institute for Environmental Policy (IEP) in Prague, which helps identify training needs, course design, identification of trainers, and pilot training activities. The IEP has developed modules for training as well as tools such as a video and educational tapes.
- Center for Environmental Analysis in Děčín, North Bohemia, which delivers training activities for the ETP in North Bohemia. The Center's Director also serves as an advisor to the Czech Ministry of Education.
- Project Silesia Information Center in Ostrava, which is active in the North Moravian region.
- North Bohemia Economic Association (NBEA), which is a non-governmental organization (NGO) composed of heavy industries as members. The NBEA runs the environmental business management training portfolio of the ETP.

Emphasis on Training of Trainers

Czech trainers were trained through ETP to conduct courses in environmental impact assessment; financial management for environmental business; conflict resolution; toxic release inventory; business planning; environmental auditing; and environmental marketing. When ETP project funding ended in the Czech Republic, the ETP In-Country Coordinator was able to establish a base at the Institute for Environmental Policy. This office runs ETP training courses with funds raised primarily from domestic institutions, including the Czech Ministry of Environment. Both the Center for Environmental Analysis and the North Bohemian Economic Association collaborate with the University of Usti nad Labem.⁶

The ETP program appears to have been especially successful at the University of Usti nad Labem, where trainers were trained and courses were developed in environmental policy, management, and science. It is unclear whether the scope of such work was duplicated elsewhere, but this may not be a great concern given that Usti nad Labem has now established a good reputation as a center of environmental study in the Czech Republic.

As a result of the environmental impact assessment workshops, a working group of participants and trainers was formed to seek improvements in the Czech EIA law. The Ministry of Environment published a plan based on this workshop to amend the EIA law (this amendment is still pending in parliament).

Some 2,000 copies of a booklet about the Czech EIA process were published using information based on workshops. Booklets were circulated to government agencies, NGOs, and universities in both the Czech and Slovak republics. Workshop materials and interactive participatory techniques introduced by ETP are used to teach EIA at a regional university's environmental school in Northern Bohemia. A toxic release inventory (TRI) workshop was used to help re-draft a legislative initiative for introduction of the TRI process in the Czech Republic. A university in Prague produced a resource book (over 1,000 copies printed) for environmental economics for university teachers.

Attitude surveys and pre- and post-tests were used to measure what participants had learned. Results from a workshop for entrepreneurs and managers from small to medium-sized emerging/newly established environmental businesses show that participants found the course to be the most practical training they had ever attended. They indicated that the course met or exceeded their expectations.

Multi-Pronged Approach Works Best When Offering Training and Technical Assistance

The **Utility Partnership Program (UPP)** has been effective in introducing public and media relations to a state-owned company (ČEZ), while helping contribute to the company's long-term financial viability and change the corporate culture. "When we first went over there in 1992," says one manager involved in the project at Houston Light & Power (HL&P), "the information department was still in a 'communist' mode. There were talented people but they had little experience in open market communication and had limited technical equipment like computers...There was a dramatic transformation over four years."⁷

The project made excellent use of the information tools available. *Management and technical advisory missions*, held at least once a year, greatly assisted ČEZ with strategic planning, personnel management, and human resources issues. *Executive exchanges* between HL&P and ČEZ (at least two visits each year since 1991 to their respective companies) dealt with management issues and were used to plan future activities. Information reached well beyond senior management. *Focused seminars* were designed and held for all levels of ČEZ management, from executives to technical specialists. *Information exchange programs* provided a range of general support mechanisms,

including sponsorship of attendance at US industry conferences, distribution of technical reports, and reference materials. An *internship program*, where ČEZ officials worked directly at HL&P, offered them the opportunity to see first hand the operations of a US utility with comparable generating capacity.

Practical training was also provided in areas such as how to handle media and conduct news conferences. Events organized with the help of HL&P focused on how to communicate facts (especially about nuclear power), how to announce news to the public, and how to build corporate credibility. These events have led some Czech journalists to acknowledge that communications at ČEZ have improved dramatically since 1991.

Several workshops were also held for communication staffs from power plants. "We showed them how we do it in the West," says the same HL&P manager. "They selected the pieces most effective for them in their country." Information was provided in a way that helped ČEZ explain why a particular decision was good not only for the company but also for its customers. There are also indications that ČEZ has learned how to move information faster, both for internal decision making and for public consumption.

Emphasize Business Training

Results of USAID's assistance appear to have been especially beneficial when oriented toward enhancing management, financial, marketing, and other business skills of local participants. For example, while the **Environmental Action Program Support (EAPS)** program has been described as a "mission-defined project" (and therefore it was not programmatically focused on information/education components) a key project objective was to work with the Czech State Fund for the Environment (SFZP) to provide technical assistance in strengthening a market loan program for environmental investments.⁸

The EAPS project also involved working with municipalities to help develop a training program to relay information to municipal officials about how to prepare projects and to obtain loans and grants from the SFZP. The project, therefore, helped strengthen the capacity of both borrowers and lenders. In terms of strengthening the SFZP, the project helped the fund more accurately predict cash flow and understand more about the lending process. The project introduced loan guarantees, strengthened cash management and evaluation procedures, and helped reorganize the SFZP's board of directors.⁹

Provide Local Participants with Good Information Tools

In the course of consultation with staff members at SFZP, the EAPS/Czech team found a lack of knowledge about many basic principles of finance. The team prepared a set of seven “manuals” to serve as financial planning tools. The manuals were not only provided to SFZP but were also distributed to EAPS field teams in Lithuania, Romania, Poland, and Bulgaria.¹⁰

3.3 Demonstration Projects and Information Centers

USAID participated in energy and environmental **demonstration projects in Plzen, Cesky Krumlov, Ostrava, and Usti nad Labem**. Of these four projects, the demonstration project in Plzen appears to have been most successful in providing information to the target audience. The Plzen project’s objective was to analyze the energy supply and demand situation for the city. Parsons Power (formerly Gilbert Commonwealth) worked on the supply side (focusing on heat and energy generation, distribution, and transmission), while PNL and SEVEN (along with its Czech subcontractors, City Plan and Pisch) focused on the demand side (including residential, commercial, and industrial buildings).

Demonstration Projects Have a Strong Impact on the Local Audience

According to a former employee of TECOGEN (now a private consultant to Elektrotek, Pacific Northwest Laboratories (PNL), and other companies), “A lot of knowledge goes into the contractors’ hands in a short time... Getting such businesses started was a major contribution.”¹¹ In Plzen, managers of the city heating plant followed much of the advice of US counterparts—even after the project ended—in areas such as metering, weatherization, and insulation. “We showed them how to do it,” the consultant said. “Later they invested in it themselves.”

Business Orientation Produces Best Results

A key element of success appears to be the fact that energy efficiency improvements were explained as good *business* investments. Since the Czech government was in the process of handing over the power plant and distribution system to the municipality, USAID and DOE contractors convinced the municipality to assess the value of the facility before it would be privatized. The head of the energy department in Plzen said “when (USAID advisors) told us we could save 30 percent of our energy, I laughed and didn’t believe them. But we implemented (their) suggestions on metering and insulation and saved *more* than 30 percent [emphasis added].”¹²

But Pilot Projects Can Encounter Problems

If Plzen municipal officials remain very appreciative of USAID-supported work in this area, it is unclear whether other pilot projects received similar praise or indeed whether they ever got off the ground. Cesky Krumlov appears to have been a poorly selected site, especially in terms of collaborating with US officials ("They are quite close to the German border and prefer to deal with Germany," one former contractor told the Project Team). Ostrava and Usti nad Labem are two areas of intense activity in the environmental area, but the Project Team was unable to find sufficient information related to energy efficiency within the contract period.

Information on Pilot Projects Should Be Adequately Shared and Disseminated

Energy conservation investments have been made at the Plzen demonstration plant (and others), but the extent to which word has been spread on these projects appears limited. Critical information related to energy efficiency and environmental improvement—such as new technology and business practices—has not been disseminated to other companies, *at least not in a specific, project-oriented way.*

These concerns have already been expressed in earlier project assessments, most notably in a 1996 USAID Center for Development Information and Evaluation (CDIE) report. These evaluations found that, in general, demonstration plants/companies that received energy efficiency equipment were using that equipment effectively (these plants received advice from a consulting arm of SEVEN, Energy Performance Services Co.). However, according to the CDIE report, "plant engineers appeared unaware of what was happening at other plants in the Czech Republic. Nor did they know what equipment and services were available, or how to find solutions to energy problems that were beyond their own technical knowledge."¹³

Another example is the work of the **Center for Clean Air Policy (CCAP)** on the Joint Implementation (JI) projects at Děčín. This activity achieved notoriety by opening the door for JI projects in the region and by establishing links between US utilities and Czech municipalities. However, it appears to have missed a major opportunity to advertise JI to a wider audience. In addition, the CCAP in general seems to have become unfocused and deviated from its principal tasks.

In September 1997, the US EPA organized a conference on Joint Implementation (JI) to discuss the future of such projects. One such topic of discussion was how to resolve the continuing disagreement between the Czech Republic and the United States over how many emissions credits should be allocated to the US utilities. Such discussion probably should have taken place at a much earlier stage.

The **World Environment Center (WEC)** also carried out demonstration projects at the Chemopetrol Litvinov refinery, the Spolana Neratovice chemical plant, and the heat and electricity

supplier ZTT Viadrus Bohumin. There appears to be no question that the demonstration projects at Litvinov produced considerable benefit to the company.¹⁴ Results of the WEC's work at the Spolana Neratovice plant and ZTT Viadrus Bohumin appear to have been equally impressive.¹⁵

USAID also indicated that WEC-led projects were successfully implemented at the Moravian Chemical Works Ostrava, Ostramo Ostrava, Lachema Brno, Spolana Neratovice, Chemopetrol Litvinov, Spolchemie Usti nad Labem, Pharmacon Olomouc, and Sindat Plzen. "Success" is apparently measured by the completion of a WEC-led training program on waste minimization.

Other Recent Projects Are Well Received But May Not Be Duplicated

Under a contract with **Electrotek** (with SEVEN as the lead in-country organization), USAID has recently worked on the development of demonstration activities for energy efficiency in Czech hospitals and schools. Five demonstration sites include Frydland, Litomerce, Ivancice, Mimon, and Uherske Hradiste. According to Electrotek, these demonstration projects were successful and well received.¹⁶

In Uherske Hradiste, there was a serious flood last June. The cost of energy to dry buildings is high. Electrotek, with USAID funds, was able to mount an energy efficiency demonstration project to dry selected buildings such as schools, hospital, clinics, and a historical building. The project not only demonstrated goodwill but also demonstrated an energy efficient system for drying buildings.

These projects have yet to be duplicated, however SEVEN is taking steps to ensure that the advantages of these investments are sufficiently promoted to the broader industrial community. It is too early to tell whether these information efforts will be capable of stimulating similar projects in which USAID is *not* involved. Much depends on external economic factors such as the direction of energy prices. Therefore, ***while demonstration projects can clearly prove themselves locally, a question must be asked whether a demonstration project accomplishes its objectives if it is not duplicated.***

USAID-Supported NGOs and Information Clearinghouses—Can They Close the Information Gap and Spread the Word on Demonstration Projects?

SEVEN should be singled out as one USAID-sponsored institution with good potential to turn itself into a profitable consulting firm. But SEVEN is neither a trade organization nor a well-endowed research institute. While it publishes its own newsletter and holds major conferences, SEVEN cannot possibly manage the flow of information between demonstration plants and, for example, city heating systems (there are hundreds in the Czech Republic).

Nor perhaps should it. To cite the 1996 CDIE report, "The best hope for energy conservation is with privatized companies with foreign partners, since foreign firms bring technology, management, finance, and marketing skills. They also are concerned with cost controls, take a strong

interest in energy conservation, and are willing to make energy conservation investments with a longer payback period.”¹⁷

The implication is that SEVEN might be better off helping advise city heating managers about competition coming from private power suppliers, cooperative heating systems, and gas and electricity distribution companies. Only with all this information would the picture become clear on what others are doing on energy conservation—in a way that makes business sense for each company.

SEVEN appears to be making this shift away from information center to private consulting firm. It is now searching for commercially viable energy efficiency projects along the lines of the energy performance contracts being carried out successfully in the United States. Intesco is another energy services company whose local operation was started from a SEVEN-sponsored energy efficiency center. This activity, of course, will require a pragmatic approach until energy prices have risen to reflect their costs.

Enlist University Support to Help Identify Energy Efficiency Potential

If SEVEN may not be expected to put together all of the information that can be disseminated about energy efficiency improvements, certain universities may be in a position to offer help. As part of the training program conducted between the University of Tennessee and three Czech technical universities, teachers and students are coming up with practical ways both to learn more about energy efficiency improvements and to help local business.

Czech Technical University (Prague) faculty have created an Energy Assessment Center, which seeks to carry out student-led audits of businesses to gather information on energy efficiency. Two businesses have already welcomed these teams and the first audit is due to take place in February 1998. This appears to be a very encouraging project and USAID should continue to monitor whether the Czech Energy Assessment Center acts as a “laboratory” for future students, will be internally financed by the target businesses, and serves the unmet need of small manufacturing firms for more information on energy efficiency improvements.

Are Private Firms Going to Carry the Water?

By advising a small number of energy-intensive companies in the Czech Republic, it is possible for an organization like SEVEN to help the country realize major energy efficiency and environmental gains. However, the extent to which Czech companies will adopt energy conservation and environmental measures remains a matter of economics and business sense. If energy is a major cost of production and fuel costs are high, then energy efficiency measures will be taken. If a company is a big polluter—facing penalties for non-compliance—steps will be taken to pollute less.

What is likely to increase dramatically due to SEVEN's involvement is the decibel level at which energy conservation investments are heralded over investments to increase sales and output. Despite considerable changes, many large state-owned enterprises are carrying on as before: with a secure market and government subsidies or price controls. These firms emphasize production rather than efficiency or cost reduction. Energy conservation is a secondary interest. Moreover, not all environmental projects are designed to assist companies in adopting environmental measures.

The growing field of energy service companies (ESCOs) will need to carry the mantle of energy conservation. Energy performance contracts (EPCs) are expanding in the Czech Republic. To date, nine EPC contracts have been completed and another five are in progress.¹⁸

Private Firms May Retain Information—Is This the Intended Exit Strategy?

USAID has made some attempts to help disseminate information related to specific environmental projects, such as those launched through the **Capital Development Initiative (CDI)**. As designed, Sanders International (now ARDA in the Czech Republic) was to "advertise the CDI program to (1) build a network of business and institutional contacts to establish a 'critical mass' of interested parties; (2) identify the players with greatest potential; and (3) provide the daily support services necessary to developing successful environmental business investment projects."¹⁹

The contractor established initial contact with over 160 local firms and 125 local organizations in the Czech Republic through personal contact, mass mailings, and advertisements sent through the Association of Ecological Partners and the Czech Ecological Management Center. According to Sanders International, this helped produce long-term relationships with more than 30 interested local firms.

Of the approximately 15 projects in various stages throughout Central Europe, there are perhaps two to three underway in the Czech Republic. No information on these projects—nor on the network of business/institutional contacts, key players, and support services described above—has been shared on any widespread basis. Moreover, it is unclear whether USAID ever asked for and received this sort of information from its contractors. Clearly, *where private business interests are involved, information concerning business contacts and potential investments will be closely held by the firms engaged in such activity.*

Another aspect of this issue—the extent to which USAID can properly disseminate information on projects that mix public and private interests—is that some private Czech firms are now marketing USAID-supported analysis and information to several local energy companies as well as the government. US firms without direct access to the information generated by USAID contractors (on tariff structures, energy prices, and other commercially valuable data, for example) are the losers. The responsibility for disseminating this information to as broad a network of US companies as possible rests with USAID and other agencies (such as the USFCS through its company database).

4. Recommendations for Other USAID Missions

One of USAID's primary goals, especially in an era of declining budgetary resources, is to promote economic growth and development *through the delivery of knowledge and expertise*. An information dissemination strategy should therefore be part of nearly every USAID project. Such a strategy must be attuned to the human issues of getting people to document discoveries and insights, seek out and use others' ideas, and take the time to think through problems together. It should also introduce innovation, stimulate creativity, build networks, and maximize outreach.

4.1 Problems in Devising an Effective Information Dissemination Strategy

An effective information strategy in the countries of Central and Eastern Europe is hampered by deep-rooted cultural behavior that is the legacy of communism. Only seven years ago, Central and Eastern Europeans lived in an extremely closed society, where information was closely guarded. They are only recently learning to share and distribute information. The region may never develop as "open" a society as the United States.

Two other factors place inherent limitations on the effectiveness of even the best-designed information dissemination strategy in Central and Eastern Europe. One is that organizations may be naturally unwilling to share information, especially if it is considered "proprietary." With so much of their world opening up after decades of secrecy, many individuals in these areas may not understand what information should naturally be made public—as opposed to being held commercially valuable or politically sensitive, for example.

The other limitation relates to the growth of information technology. The information age is already creating explosive changes in the region, but it will take several more years for countries to use this technology to improve the flow and use of information.

Given these restraints, it may be overly unrealistic to expect USAID's information dissemination activities in the energy and environmental sector—over a period of seven short years—to have produced any dramatic results. Yet what can be learned from these efforts? How can other USAID information dissemination efforts in Central and Eastern Europe make maximum use of their resources to produce maximum impact?

The following recommendations are aimed especially at local institutions that are the main storehouses of energy and environmental information and that are responsible for disseminating that information when USAID is no longer active in a country.

4.2 Necessary Elements of an Information Dissemination Strategy

Business and Economic Relevance

The Project Team found, based on the Phase I survey results and supplementary interviews, that advice and information was especially beneficial when oriented toward enhancing management, financial, marketing, and other business skills of local participants. ***For any given agency or enterprise, information must be pursued for clear business and economic reasons.*** Without a clear vision of how advice and information serves the business and economic needs of an organization, an information dissemination plan could easily become a monument to an idea that generates little interest or use.

Relevance to Individuals, Groups, and Organizations

Information on energy conservation and environmental protection needs to reach three different levels: individual, group, and organization-wide. It is not enough to train or educate a few individuals. Nor is it sufficient to put forth broad ideas (e.g., integrated resource planning or tradable pollution permits) that may be important to an organization but difficult for its employees to view as relevant to their duties. USAID must help each level work together, so that individual insights, group activities, and an enterprise's policy objectives can be captured and shared. A few possible ways to encourage this information flow are to:

- Try to eliminate barriers to horizontal and vertical communication and rely on direct, face-to-face communication.
- Select managers and department heads based on their ability to encourage experimentation and share knowledge.
- Reassign employees frequently to different teams to share specialized knowledge they obtained or developed.

4.3 Optimal Means of Organizing and Disseminating Information

Capturing Good Information

When finding and hiring consulting firms to work on energy and environmental information dissemination activities, one of the first questions USAID should ask is whether these firms have a system for organizing and disseminating explicit information. The extent to which USAID and its contractors have thought this process through is probably more important than any particular means (conference, workshop, study tour, etc.) of getting the word out.

For example, some US companies encourage employees to document project summaries, lessons learned, tools and approaches. Interconnected technology such as electronic mail or an intranet makes this information easily available to staff. One of USAID's subcontractors in the Czech Republic, Arthur Andersen, has several information systems geared to capturing staff experience. The company encourages employees to document insights about projects in its Global Best Practices database, which contains 9,000 pages of highly structured information organized by service and industry.

There is no reason why a USAID-supported organization (especially one with business motivations) could not attempt to put together such an information directory. The challenge is to encourage and enable all employees to be both producers and consumers of the explicit information. Another caution is that an information management system could easily focus primarily on building an electronic information base, without creating equally powerful mechanisms for direct face-to-face, telephone, and interactive electronic communication. Human systems for sharing knowledge are just as important as electronic ones.

Usefulness of Information to "Front-Line" Staff

USAID's information dissemination activities range from very focused, technical projects for sharing knowledge to broad-based awareness campaigns covering many different kinds of information. Regardless of the approach, ***usefulness to core staff is the key determinant of what information should be collected and disseminated through an information base.***

In some USAID-supported organizations—SEVEN is perhaps the best example, but these certainly includes government ministries as well—staff have compiled databases on energy efficiency, air emissions, etc. Yet it is unclear whether these databases contain decisions and issues staff have faced in the course of their work. Nor is there any apparent link between input and use of this data.

There are several ways to create an information base that has a good chance of being used by staff within an organization. Some possibilities include:

- Create a "best-practices" database, using input from peers—not backroom experts—to get guidance on current issues. With everybody contributing as his or her work progresses, such a database can help with decision making and staff training.
- Look for ways to encourage staff to become leading experts in a field or sub-discipline. Information databases *associated with individuals* not only keep staff up-to-date on the latest methods and technologies, they also promote the work of those responsible for the contents.
- Monitor *who* uses the information, not just how often the database is accessed.

One cautionary note: When creating an information clearinghouse or database, there is always the risk that the compilation of organization-wide or broader-based knowledge can result in an expensive and useless information junkyard. Professional staff who are asked to document their work processes in electronic databases may feel that their work is too varied to be captured in a set of procedures. They may consider information in the database as too general to be useful. Therefore, without a clear vision of what is useful to task managers and staff, an information dissemination network could be ineffective.

Sharing Good Information with Outside Organizations

Making sure that networks, processes, and procedures exist for capturing, organizing, and disseminating information within an organization is only half of USAID's battle. ***The ability to link managers and staff to other government agencies or private businesses is very important and no doubt a difficult objective.*** Yet the positive impact on problem-solving and research activities can be huge. For example, rather than doing its own research, SEVEN relies on partnerships with other firms to learn about technology and quickly disseminate that information to its growing list of clients. This gives them a competitive advantage in the market.

Making Best Use of Means and Methods

The most comprehensive information dissemination strategy uses several different methods for sharing knowledge, each one appropriate to the kind of advice and information being provided. Some information, for example, has a long shelf life and can be effectively updated on a quarterly basis, loaded onto CD-ROM, and distributed. Some information must be actively updated on a daily basis, while much information (especially policy-related) needs live discussion and interaction to clarify understanding and to draw results out of individuals.

In short, the process for information dissemination needs to be as multi-dimensional as the information itself. For any given project, a few examples of their how USAID programs might structure its various levels of contact with the recipients of information are as follows:

- Receive input from participants on information needs and clarify interpretation of advice (and data) by holding large, informal, weekly or monthly meetings, where any participant would be invited to intervene.
- Share more detailed or technical information by offering formal presentations (on new technology, for example).
- Ensure that information and data is consistent and widely available by creating a common electronic library.
- Provide informal help at almost any time by designating a local liaison officer within USAID or its contractor (with project expertise).

Each of these different processes is geared to sharing different kinds of information, from general policy advice to technical know-how to concrete data. The key is to avoid any tendency toward a knowledge management system where one size fits all.

4.4 Rewarding Information Dissemination and Aiming for the “Multiplier Effect”

There is a difference between enhancing information dissemination through better access to electronic information systems *per se*, and creating an information system that is part of and supports a larger knowledge-sharing process. The latter is the goal. The real implementation challenge is not to get the information base, hardware, and software in place, but to encourage their use.

Especially considering the unique cultural factors in the Czech Republic, it appears that not enough consideration has been given to options to reward the documenting and disseminating of information provided by USAID to key participants. A balanced mix of rewards and consequences to encourage individuals, groups, and organizations to use and share information might include:

- Making contributions to an information base part of an employee’s performance appraisal.
- Attaching authors’ names to documents and measuring use of this information.
- Getting senior management to acknowledge staff contributions and sharing of experiences.
- Offering better communication tools through shared software programs.

There will undoubtedly be mixed reactions from staff with regard to the general utility of some information. Certain individuals will refuse to believe that it can improve their informal networks and professional responsibilities. In the short - term, they might be right! But the trick is to replicate (and improve on) what they know through USAID’s involvement. The real way to achieve results is to do all that is possible to legitimize this approach and establish its credibility.

5. Endnotes

1. The Phase II Project Team also had some difficulty “categorizing” projects, especially with the number of overlapping activities and consultants involved.
2. The wide-ranging number of activities under this project heading makes it difficult to generalize about the effectiveness of the information provided.
3. In this sense, education and awareness activities are considered to be different from individual training programs.
4. Based on internal correspondence from Arthur Andersen to the Ministry of Industry and Trade.
5. Interview with Mr. Milan Černý, Chemapol Group, a.s., September 16, 1997.
6. Extensive courses in energy efficiency have also been added to university curricula in the Czech Republic.
7. Interview with Mr. G. B. Painter, Houston Light & Power, September 22, 1997.
8. The SFZP was established in 1992 to provide financial support for environmental remediation and protection.
9. Before EAPS, according to Chemonics, the Minister of Environment made individual decisions on loan disbursement, with applicants occasionally rejected on political grounds. EAPS helped introduce a “no exception policy” that, in effect, helped decrease political influence in the loan-making process.
10. The manuals prepared are: *Guidelines for Credit Analysis for the Czech State Fund for the Environment*; *Fundamentals of Loan Guarantees*; *Guidelines for Credit Procedures for the Czech State Fund for the Environment*; *Guidelines for a Credit Policy for the Czech State Fund for the Environment*; *Analysis of the Proposed SFZP Guarantee*; *Developing a Loan Guarantee Program for the Czech State Fund for the Environment—Review, Background, and Recommendations*; *The Lessons of Project Finance: Principles of Techniques for Adaptation by the Czech State Fund for the Environment*.
11. Interview with Mr. Andrew Popelk, private consultant, September 24, 1997.
12. According to *Popelk* interview above.
13. US Agency for International Development, CDIE Impact Evaluation, PN ABS-547, *Saving Energy in the Czech Republic*, No. 2, 1996, p. 13.

14. Volatile organic compound emissions are estimated to have been reduced by over 940 tons per year due to a \$20,000 investment in equipment. Annual savings to the company are estimated at over \$100,000. The methodology developed by the WEC is now an integral component of the refinery's R&D (research and development) Center operating policies.
15. Equipment provided by the WEC at a cost of \$30,000 has resulted in annual savings in raw materials costs of \$60,000. According to USAID, process and technology changes proposed by WEC staff apparently resulted in savings of over \$800,000. The WEC's methodology for detecting and repairing leaks has saved the company \$20,000 per year and generally created a safer, healthier workplace for its employees. The WEC also started a pilot project with the heat and electricity supplier, ZTT Viadrus Bohumin, on total waste minimization management. According to the company, this project has resulted in annual savings of \$200,000.
16. The hospital energy efficiency pilots included a demonstration project at a hospital in Frydland. After an economic feasibility study to identify cost-effective sources for back-up power generation, the project put in an initial investment totaling \$20,000. Using this, the hospital was able to leverage more than \$100,000 in local resources to promote energy efficiency.
17. US Agency for International Development, CDIE Impact Evaluation, PN ABS-547, *Saving Energy in the Czech Republic*, No. 2, 1996, p. 13.
18. The Project Team regrets that it was unable to obtain specific information concerning these projects within the one-month contract period.
19. From materials provided by Sanders International to the Project Team.

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Appendix A
Statement of Work

1.4 STATEMENT OF WORK

Analysis and Recommendations

The contractor will provide a detailed analysis of the survey results. The detailed analysis will not only include a description of the statistical results, but also provide explanations and a comparative analysis of trends in the outcome of the survey. In addition, the contractor will provide answers to the questions below based on the survey and follow-up interviews with survey recipients and others as required. The consultant's analysis will not involve any of the nuclear regulatory/nuclear safety part of the AID assistance program due to its highly sensitive nature.

I. The bulk of U.S. assistance to the Czech Republic in the environment sector was implemented by the U.S. Environmental Protection Agency. A significant component of the program was programmed for basic training and targeted technical assistance with the goal of "providing the building blocks of information and tools necessary to address the full range of challenges facing environmental managers and encouraging the development of sound environmental policies." The other technical assistance activities were also to provide information in order to achieve similar results.

A large portion of the USAID energy assistance centered on demonstration projects that introduced new low-cost/no-cost methods of using existing technology to solve problems new to the Czech Republic and disseminating the results to a wider audience. A recent CDIE evaluation was critical of the information dissemination aspects of the USAID energy program and recommended that "USAID should begin with careful analysis of the setting and then devise a responsive strategy."

This recommendation is probably valid in a typical developing country setting but has no bearing in this case since in 1990 USAID was directed by Congress to immediately implement as many activities as possible in all sectors of the economy. While this is a valid explanation for the initial lack of an information-dissemination strategy in both the environment and energy sectors it does raise some questions.

Was an information dissemination strategy developed after the initial start-up of the program? If so, when? If not, would this have been possible and when would it have been appropriate? Would it have increased the impact of the USAID assistance? How? How was the target audience chosen for dissemination of results? Could these methods have been improved upon? If so, how? What are the concrete results of the dissemination effort? Provide examples. Which mode(s) and method(s) of disseminating results from demonstration projects was most successful? Why? What was the most effective vehicle for disseminating information (NGOs, private firms, newsletters, internet, government, etc.)? Was the effectiveness of the vehicle dependent of the composition of the target audience? If so, what are the trends? Was the composition of the information different depending on the vehicle and audience? If so, how? If not, should it have been?

Appendix B
Fact Sheets and Descriptions of Selected Projects

Project No./Name: 180-0015 **Emergency Energy Project ("EEN")**
Start Date: 12/29/90 **Completion Date:** 11/30/91
Budget Obligations: \$1,200,000 **Budget Expenditures:** \$1,200,000

Participating Institutions:

Czech: SEVEN (Czech Energy Efficiency Center)
American: Resource Management Associates (Madison, WI)

Approximate Number of Direct Local Participants: 15

Information Dissemination Components Included in Project Design: No

Phase I Survey Results:

Number of responses: 8
Recollection of project: strong
Primary mode(s) of participation: workshop, conference, presentations
Satisfaction with materials/information offered: Average
Satisfaction with advisors/instructors: Average
Ability to use information and experience in individual work: Average
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: Average

Comments:

One of the earliest USAID projects in the energy sector, this assistance was designed to help increase the efficiency of energy use in the industrial sector. Resource Management Associates (RMA) conducted energy audits, identified so-called "low-cost, no-cost" energy-efficiency improvements, and installed some energy saving and monitoring equipment at eight sites in the Czech and Slovak republics. USAID also supported efforts to liberalize energy prices (in cooperation with the World Bank and the International Energy Agency) through contact with the Ministry of Finance and the Ministry of Economy.

This project seemed most useful to Czech participants by introducing them to foreign energy efficiency experts and by creating SEVEN. The Phase I survey is critical of the target audience selected for this project. This might be partially explained by the fact that early contact with local government officials involved a steady struggle both to develop mutual trust and to connect with motivated, reform-minded individuals. Other comments were to: (1) pay close attention to conditions in the Czech Republic; (2) focus not just on the identification of projects but on ways to attract financing to energy efficiency projects; and (3) carefully select participants to ensure they are qualified and motivated to pursue activities.

Project No./Name:	180-0030.02A	PASA/IAA with US DOE ("DOE")	
Start Date:	06/06/91	Completion Date:	09/30/97
Budget Obligations:	\$3,573,080	Budget Expenditures:	\$2,864,008

Participating Institutions:

Czech:	SEVEn (1992-94) Energoprojekt North Bohemian Economic Association (NBEA) Energ-Steel Ostrava (1993-95)
American:	Gilbert Commonwealth Inc. (Parsons Power Group) TECOGEN Inc. PNL Battelle Memorial Institute

Approximate Number of Direct Local Participants: 30

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses:	17
Recollection of project(s):	strong
Primary mode(s) of participation:	workshop, conference, presentations, work training
Overall satisfaction with materials/information offered:	Average
Overall satisfaction with advisors/instructors:	High
Ability to use information and experience in individual work:	Low
Follow-up contact from participating foreign institution:	No
Overall relevance/timeliness of information provided:	Low
Methodology/approach to problem solving:	Low

Comments:

This wide-ranging project involved many tasks related to energy efficiency, utility planning, and, to some extent, pollution reduction. Since 1992, USAID, DOE, and Czech municipal officials in the cities of Plzen, Cesky Krumlov, Ostrava, and Usti nad Labem worked together on pilot projects aimed at solving energy and environmental problems.

A major component of this project was related to information dissemination. Such information objectives included:

1. Development of consumer information programs to help consumers consider energy efficiency as a factor in purchasing equipment (such as furnaces, refrigerators, and other major appliances).
2. Coordinating, evaluating, and disseminating the results of selected energy efficiency projects on a regional basis, including demonstration projects.

3. Training and information for electric utilities to deliver energy services in a way that reduces both consumers' energy bills and utilities' operating costs.
4. Public education on household energy-saving measures.
5. Transfer of US experience in developing municipal energy systems, with an emphasis on least-cost planning and pollution reduction.
6. "Energy networking" through the creation of a Technology Transfer Network (TTN), which would publicize results of energy efficiency projects, inform the public about clean-coal technologies, conduct training on energy efficiency, and introduce US vendors to the Central European market.

While difficult to assess as a whole, this project seems to have had little impact on its participants. This is particularly noteworthy given the considerable information component in the project. The most influential work appears to have been in explaining relatively simple methods of designing heating systems for buildings and conserving energy in residential apartments.

A large amount of information was described by participants as redundant and overly theoretical. Energy efficiency projects were not shown to be able to produce savings on fuel bills (unless the projects were subsidized). A subsequent focus on identifying barriers to energy efficiency—such as the lack of financial incentives, information, training, and technology—led to confusing debate about the extent to which the government should offer subsidies to both industry and residents.

Project No./Name: 180-0030.01A **Energy Sector Regulation—Bechtel (“ESR”)**

Start Date: 06/01/95 **Completion Date:** 09/30/96

Budget Obligations: \$889,723 **Budget Expenditures:** \$758,287

Participating Institutions:

Czech: Ministry of Industry and Trade
 Ministry of Finance
 ČEZ, a.s.
 Transgas
 Prazska energetika
 Zapadočeska energetika
American: Bechtel
 Arthur Andersen

Approximate Number of Direct Local Participants: 25

Information Dissemination Components Included in Project Design: No

Phase I Survey Results:

Number of responses: 6
Recollection of project: strong
Primary mode(s) of participation: workshop, conference, presentation, study tour
Overall satisfaction with materials/information offered: Low
Overall satisfaction with advisors/instructors: Average
Ability to use information and experience in individual work: High
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: Average

Comments:

The objective of this project was to help prepare energy laws and regulations, to assist in creating a new regulatory authority, and to develop energy tariff methodologies. As the Czech Republic worked to put into force Act 222 (the Energy Law), the Bechtel team reviewed the capability of energy companies to submit revenue and cost information to the Ministry of Industry and Trade. Bechtel provided training to the Ministry of Industry and Trade staff to enhance their knowledge of the concepts and mechanics of energy regulation. The Ministry of Industry and Trade required legal support to assist staff in reviewing and providing advice on existing legislation and regulations. This activity was then expanded to include valuable and timely assistance in drafting new legislation geared toward power sector privatization efforts and a more competitive power industry structure.

Project No./Name: 180-0030.04 **Utility Partnership Program—USEA (“UPP”)**

Start Date: 09/01/91 **Completion Date:** 03/31/96

Budget Obligations: \$1,642,626 **Budget Expenditures:** \$1,538,187

Participating Institutions:

Czech: ČEZ, a.s.
American: US Energy Association
 Houston Industries (Houston Light and Power)

Approximate Number of Direct Local Participants: 30

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses: 18
Recollection of project: strong
Mode(s) of participation: workshop, conference, work training, study tour
Overall satisfaction with materials/information offered: High
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: High
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: High
Methodology/approach to problem solving: Average

Comments:

The objective of this project was to provide a mechanism enabling the experience of U.S. electric utilities to be transferred to Central and Eastern European utilities. In the Czech case, this cooperation was between Houston Light & Power and ČEZ (with the assistance of the United States Energy Association), thereby helping to address management challenges and technical, financial, economic, regulatory, and environmental issues.

The work between HL&P and ČEZ was supplemented by United States Energy Association (USEA)-sponsored involvement of ČEZ management in three Informational Study Tour Programs covering energy efficiency, combined cycle power generation, and the strategic value of fossil fuels. USEA also invited ČEZ participation in regional programs dealing with interconnection of the CENTREL system, power plant reliability, international environmental cooperation, environmental management systems, regulation and independent power, environmental technology, and clean coal technology. The work plan for ČEZ initially focused on four priority issues: environmental protection, regulation and industry restructuring, general utility management, and financial management. This work later evolved into six focused areas: corporate relations, environmental controls, internal auditing, rate setting, environmental standards, and power plant monitoring and diagnostics.

Project No./Name: 180-0030.01B Utility Consulting—Central Maine Power (“UCON”)

Start Date: 02/02/94 **Completion Date:** 07/31/97

Budget Obligations: \$356,998 **Budget Expenditures:** \$356,998

Participating Institutions:

Czech: Prazska Energetika, a.s. (PRE)
American: Central Maine Power International Consulting (CMP)

Approximate Number of Direct Local Participants: 12

Information Dissemination Components Included in Project Design: No

Phase I Survey Results:

Number of responses: 10
Recollection of project: weak
Primary mode(s) of participation: workshop, conference, work training, study tour
Overall satisfaction with materials/information offered: Low
Overall satisfaction with advisors/instructors: Average
Ability to use information and experience in individual work: Average
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: Average

Comments:

Central Maine Power (CMP) collaborated with Prazska Energetika (PRE) and other Czech distribution companies on tasks related to financial planning and management, customer service, and general corporate management. While CMP worked directly with PRE, the information was to be shared with the other seven Czech distribution companies for use in their own planning processes. Work lasted over two years between 1994 and 1997.

CMP completed (1) an initial financial planning seminar in June 1995 and distributed training materials for all Czech distribution companies; (2) developed a five-year corporate finance model, specifically tailored to PRE; and (3) completed a follow-up seminar used to provide results of work done with PRE to the other distributors. CMP and PRE staff worked together to customize CMP’s annual financial model to meet PRE’s conditions. PRE is now using this model for business planning purposes. At the follow-up seminar in June 1996, the PRE financial model was presented to the other distribution companies and to the Ministry of Industry and Trade. According to the MoIT, this model is being used as one basis to develop a regulatory/tariff model. (NOTE: This work was carried out by CMPI under a different USAID contract.)

Project No./Name: DHR-0030-C-00-5064-00 **Energy Efficiency in CEE/Baltics**

Start Date: 12/96 **Completion Date:** 07/97

Budget Obligations: N/A **Budget Expenditures:** N/A

Participating Institutions:

Czech: Technical University of Liberec
 Technical University of Ostrava
 Czech Technical University (Prague)
American: Electrotek Concepts Inc.
 University of Tennessee (Knoxville)
 Alliance of Universities for Democracy

Approximate Number of Direct Local Participants: 30

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results: project not included in survey

Project Description:

This project was designed to meet the needs for training in technical and financial analysis of energy efficiency and environmental projects. Three participating Czech universities cooperated in a four-phase project as follows:

1. Project Planning: A preliminary workshop (12/96) was held to identify project objectives and specific needs of each university, along with a strategy to recruit faculty to participate in future workshops. According to Electrotek, consensus was difficult to reach on both workshop content and curriculum development. At this time, it was also decided to limit the number of Czech participants to a maximum of eight from each university.
2. Energy Efficiency Workshop (01/97): A five-day workshop was held in Prague on a wide range of energy efficiency and related environmental management issues.
3. Curriculum Development (04/97): Nine Czech faculty members visited the University of Tennessee for two weeks of courses in how to teach energy efficiency courses and visits to local firms employing energy efficiency and environmental management techniques.
4. Implementation Support (05/97): The University of Tennessee team visited the Czech Republic to work directly with faculty. Site visits were scheduled to illustrate energy efficiency management problems and to assess possibilities for course case studies. Some Czech teachers indicated they were already incorporating previously-offered course material and pedagogical aids in their curricula. Energy and environmental case studies were also being developed by students and faculty.

Related Projects: Hospital and School Energy Efficiency Demonstration Projects.

This project focused on tariff reform and energy efficiency demonstrations showing need for tariff reform to encourage innovative financing, and demonstrations of appropriate, affordable energy efficiency measures. The specific objectives included promotion of energy efficiency project, financial planning and tariff reform, technical training and networking with municipalities, non-governmental organizations, and universities.

Electrotek was responsible for designing and implementing demonstration projects in five Czech municipalities. Activities included selection and comprehensive audit of sites, as well as recommendation of energy efficiency tariff systems, and technology transfer seminars. The USAID assistance was successfully used to leverage additional contributions from the Czech Energy Agency, municipalities, hospitals, banks, and vendors.

1. Frydlant Hospital: the hospital's old back-up diesel was replaced with a gas-driven generator equipped with a co-generation system. Annual savings amount to \$37,165 with a payback of .54 years.
2. Litomerice Hospital: building energy management system will allow the hospital to save \$20,000 annually with a payback of 1 year.
3. Ivancice Hospital: a high efficiency surgical steam generator (for sterilization) was installed. As a result of this demonstration, The hospital will save \$13,333 (with a payback of 1.6 years*) and plans to add 3 similar generators.
4. Mimon School: weatherization and the installation of zoned heating controls will allow the school to realize annual savings of \$29,125 with a payback of .58 years.
5. Uherske Hradiste Schools: high efficiency drying units were provided to relieve the city of Uherske Hradiste, one of the hardest hit by the recent flooding. The rapid intervention allowed the City schools to open on time.

Project No./Name: 180-0039.01A **IAA with US EPA—Teplice Project**
Start Date: 09/01/92 **Completion Date:** 06/30/97
Budget Obligations: \$4,661,141 **Budget Expenditures:** \$4,265,090

Participating Institutions:

Czech: Ministry of Environment
District Hygiene Station in Teplice
American: US Environmental Protection Agency (EPA)

Approximate Number of Direct Local Participants: 60

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses: 31
Recollection of project: strong
Primary mode(s) of participation: conference, workshop, training
Overall satisfaction with materials/information offered: High
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: High
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: High
Methodology/approach to problem solving: High

Comments:

This project's objective was to transfer US technology and know-how to enable the Czech government to determine sources of air pollution in the Teplice (Northern Bohemia) area and to use this information to develop emission control strategies. Project Teplice had three main components:

- air pollution monitoring and modeling to obtain accurate data on air pollution;
- studies on health effects of air pollution; and
- transfer of risk assessment methodologies developed by the US EPA.

The EPA's risk assessment methodology was adjusted to meet the needs of Czech environmental specialists. Based on information and training provided by EPA, the Ministry of Environment published guidelines for risk assessment in 1995. This risk assessment is now required with all EIS documentation.

Project No./Name: 180-0039.01B **IAA with US EPA—Silesia Project**
Start Date: 09/01/92 **Completion Date:** 09/18/97
Budget Obligations: \$4,661,141 **Budget Expenditures:** \$4,265,090

Participating Institutions:

Czech: Ministry of Environment—Regional Office in Ostrava
District Hygiene Station in Ostrava
American: US Environmental Protection Agency (EPA)

Approximate Number of Direct Local Participants: 80

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses: 66
Recollection of project: strong
Primary mode(s) of participation: conference, workshop, training
Overall satisfaction with materials/information offered: Average
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: Average
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: High

Comments:

Similar to Project Teplice, this project was a regional (with Poland) integrated risk management project begun in 1991. EPA assisted Czech counterparts in several demonstration projects to address the highest environmental risks in the region: (1) coke oven risk reduction and remediation; (2) BIOCEL pulp plant; (3) food contamination; (4) OSTRAMO (oil refinery) compliance negotiations and implementation; and (5) air quality management. In addition, EPA founded the Information Center of Project Silesia and provided a training component.

According to USAID, quantitative risk assessment techniques explained by US EPA have helped cities such as Ostrava in zone planning and environmental emergency planning. Other activities include work on an agreement between the Ostrava municipality and local industry on environmental remediation and compliance.

Project No./Name: 180-00004.01 **WEC—Waste Minimization Project (“WMP”)**

Start Date: 09/01/90 **Completion Date:** 09/30/96

Budget Obligations: \$1,679,078 **Budget Expenditures:** \$1,530,752

Participating Institutions:

Czech: Czech Environment Management Center
Chemopetrol Litvinov oil refinery
Spolana Neratovice chemical plant
American: World Environment Center (WEC)

Approximate Number of Direct Local Participants: 60

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses:	47	
Recollection of project:	weak	
Primary mode(s) of participation:	conference, workshop	
Overall satisfaction with materials/information offered:		Low
Overall satisfaction with advisors/instructors:		High
Ability to use information and experience in individual work:		Low
Follow-up contact from participating foreign institution:		No
Overall relevance/timeliness of information provided:		Low
Methodology/approach to problem solving:		Average

Comments:

The objective of this activity was to illustrate to local company management and plant personnel that the concept of waste minimization—reducing and eliminating pollution at its source before it becomes waste—is important for both environmental *and* economic reasons. Seven project cities (Bohumin, Brno, Litvinov, Neratovice, Ostrava, Plzen, and Usti nad Labem) were targeted by USAID to receive environmental expertise from foreign contractors.

The World Environment Center (WEC) introduced new conservation and efficiency approaches to certain industrial enterprises in three ways: demonstration projects, training, and information centers.

Project No./Name: 180-0039.10 **Environmental Action Program Support ("EAPS")**

Start Date: 04/01/94 **Completion Date:** 07/31/97

Budget Obligations: \$1,421,315 **Budget Expenditures:** \$1,320,435

Participating Institutions:

Czech: Ministry of Environment
Foundation Project North (Usti nad Labem)
American: Chemonics International

Approximate Number of Direct Local Participants: 20

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses: 12
Recollection of project: strong
Primary mode(s) of participation: conference, workshop, seminar
Overall satisfaction with materials/information offered: High
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: High
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: High
Methodology/approach to problem solving: Average

Comments:

The objective of this activity was to help prepare and finance "bankable" environmental projects falling within the mandate of the Environmental Action Program (EAP) adopted in Lucerne, Switzerland, in April 1993. The program in the Czech Republic was designed to provide technical assistance and to develop operating procedures for the Czech State Environmental Fund.

Project No./Name: 180-0041 **Environmental Training Project ("ETP")**

Start Date: 05/14/92 **Completion Date:** 02/10/95

Budget Obligations: \$1,531,240 **Budget Expenditures:** \$1,531,240

Participating Institutions:

Czech: Center for Environmental Policy
Regional: Regional Environment Center (Budapest)
American: University of Minnesota
Center for Hazardous Materials Research
World Wildlife Fund
Institute for Sustainable Communities (University of Vermont)

Approximate Number of Direct Local Participants: 70

Information Dissemination Components Included in Project Design: Yes

Phase I Survey Results:

Number of responses: 53
Recollection of project: weak
Primary mode(s) of participation: training
Overall satisfaction with materials/information offered: Average
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: High
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: High

Comments:

The Environmental Training Project (ETP) was funded as a Cooperative Agreement between USAID and a consortium led by the Hubert H. Humphrey Institute for Public Affairs at the University of Minnesota. Other consortium members were the Center for Hazardous Materials Research (CHMR), the World Wildlife Fund-US, and the Institute for Sustainable Communities. The ETP's activities aimed at improving environmental and natural resource management *training* capabilities. The ETP's basic approach was to (1) provide targeted, site-specific training on narrowly defined topics to small audiences, while offering broader training (especially in form of "lessons learned") to larger audiences; (2) train in-country experts to become responsible for delivering future courses and environmental information; (3) establish a regional grants program for environmental training and business management; (4) establish a clearinghouse of economic and environmental training materials in the Czech language; and (5) assist Czech universities in upgrading curricula related to environmental economics, environmental policy studies, and business planning.

Project No./Name: 180-0039.02 **Center for Clean Air Policy ("CCAP")**

Start Date: 06/01/91 **Completion Date:** 02/01/94

Budget Obligations: \$624,000 **Budget Expenditures:** \$624,000

Participating Institutions:

Czech: Foundation Project North (Usti nad Labem)
 Municipal government of Děčín and Most
American: Center for Clean Air Policy

Approximate Number of Direct Local Participants: 15

Information Dissemination Components Included in Project Design: No

Phase I Survey Results:

Number of responses: 7
Recollection of project: weak
Primary mode(s) of participation: conference, workshop
Overall satisfaction with materials/information offered: Low
Overall satisfaction with advisors/instructors: Average
Ability to use information and experience in individual work: Low
Follow-up contact from participating foreign institution: No
Overall relevance/timeliness of information provided: Low
Methodology/approach to problem solving: Average

Comments:

This project was initially conceived as a policy forum to help clarify municipal and regional government responsibilities in environmental management and taxation. The CCAP worked on a wide-ranging and relatively unfocused set of projects, including a waste-water treatment plant in Prague, a waste disposal and air quality project for the district of Melnik, and an air quality improvement project in Northern Bohemia. The Center identified several fuel-switching, co-generation, and other supply-side projects with significant potential for cost-effective pollution and carbon dioxide emission reductions.

The Center also helped negotiate the first (and only) Joint Implementation (JI) pilot project with a consortium of US utilities and the city of Děčín. The construction of a gas-fired co-generation plant was finished in September 1996.

Project No./Name: 180-0004.11 **Harvard Institute for International Development**

Start Date: 12/01/93 **Completion Date:** 06/30/97

Budget Obligations: \$318,252 **Budget Expenditures:** \$318,252

Participating Institutions:

Czech: ECON Ministry of Environment
American: Harvard Institute for International Development (HIID)

Approximate Number of Direct Local Participants: 10

Information Dissemination Components Included in Project Design: No

Phase I Survey Results:

Number of responses: 5
Recollection of project: strong
Primary mode(s) of participation: conference, workshop
Overall satisfaction with materials/information offered: Low
Overall satisfaction with advisors/instructors: High
Ability to use information and experience in individual work: Average
Follow-up contact from participating foreign institution: Yes
Overall relevance/timeliness of information provided: Average
Methodology/approach to problem solving: Average

Comments:

HIID proposed to fill a gap in local expertise in environmental economics and policy analysis by using several US and Czech consultants to provide short-term technical assistance in four main areas:

- Tax and fee system for air pollution management in the Czech Republic
- Potential economic instruments to control solid waste and air pollution
- Concept of tradable pollution permits (focusing on air pollution in Northern Bohemia)
- Advice to the Ministry of Environment on handling environmental liabilities of privatized firms (1991)

Appendix C
List of Principal Contacts/Interviewees

Appendix C

List of Principal Contacts/Interviewees

Czech Republic:

Company/Organization	Contact(s)
Ministry of Industry and Trade	Miroslav Tvrzník, Deputy Minister Petr Kacvinský, Director of Regulatory Dept. Vít Šponer, Regulatory Department Pavel Brychta, Head of Energy Policy Dept. Jaroslav Reitinger, Energy Policy Department
Ministry of Finance	Mrs. Furstova, Deputy Minister Václav Wagner, Head of Price Section
Ministry of Environment	Jiří Skalický, Minister Vladislav Bízek, Deputy Minister Pavel Jílek, Air Protection Department Alena Stovickova, staff Jiří Skalický, staff Mrs. Orlíková, staff Helena Čížková (Ostrava Regional Office)
Arthur Andersen (Prague)	Ken Hobbs Josef Pivoňka
ČEZ, a.s.	Petr Karas, Chairman Jan Vacík, Board Member Petr Veselský, Director
Chemopetrol Litvinov refinery	Dusan Nepejchal
Czech Environmental Fund	Ales Vychodil, Director Jaroslav Nevyjel, staff
Czech Environmental Management Center	Roman Vyhnánek, Director Mr. Moucha, Deputy Director
Czech Hydrometeorological Institute	Jiří Novák, Director
ECON	Jirina Jilkova, staff

Energo-Steel Ostrava	Venanc Walder, staff
Environmental Training Project	Jiří Hladis, ETP Country Coordinator (Prague) Eva Kruzikova, staff
Foundation Project North	Lubomir Paroha, Director
KNO Worldwide	Mari Novák, Director
North Bohemia Economic Association	Zdeněk Křivský, Executive Director
Prague Energy (PRE, a.s.)	Drahomír Ruta, CEO František Krakora, staff
Regional Environment Center	Jan Pisko (former USAID, now EuroEnergy) Helena Markova, Prague Office
SEVEN	Jaroslav Maroušek, Executive Director Jiří Zeman, staff Martina Didušková, staff Jana Hudcová, staff
Silesia Project	Helena Čížková
Teplice Project	Frantisek Kotesovec, Teplice Hygiene Station
World Environment Center (Prague)	Ludmila Hoffmanova, staff
ZČE, a.s. (Plzen)	Zdeněk Valeš, CEO

Outside Czech Republic:

Battelle Memorial Institute

William Chandler

Bechtel

Howard Menaker
Peter Danforth
Roger Griffin
Lydia Messie

Center for Clean Air Policy

Ned Helme

Central Maine Power

Connie Ireland

Chemonics International

Avrom Ben David-Val
Michelle Otterman

Electrotek Concepts

Larry Markel
Len Rogers
Rob Russo

Harvard Institute for
International Development

Theodore Pannayotou

Houston Light & Power

G.B. Painter
Raymond Snokhaus
Russel Reese

Resource Management Associates

Wesley Foell

Sanders International

Ed Sanders

US Energy Association

Ruth Chersonson

University of Minnesota

Zbigniew Bochniarz

World Environment Center (NY)

Thomas J. McGrath, Program Director

Christian Ellwood
Trip Notes
PROARCA/ CAPAS
December 8-12 1997

Below please find a summary of issues addressed during my visit followed by a synopsis of my meeting with AID along with a list of follow up actions needed.

1. **Insurance Coverage for CAPAS Employees** - Based on my meeting with Karla and Tere decisions per the attached memo have been made regarding insurance coverage for CAPAS employees. Karla and Tere are in contact with the insurance companies.
2. **Christmas Bonus** - I authorized the payment of Christmas bonuses per the attached memo but I have asked Karla to wait until Jan's on 12/15 for final approval and the actual issuance of checks.
3. **CV for Lenin Riquelme** - The attached CV was presented to Lucia in person at AID for technical approval. Mr. Riquelme is Tom Ankerson's candidate for Research Assistant. As soon as we receive technical approval I will notify Tom and will proceed with a modification to the University of Florida subcontract. No further approvals or requests to AID are required.
4. **Letter to Clifford Brown** - The attached letter was requested by Lucia in order that Caroline may be considered for a position with IDEADS. We will receive written approval from G-CAP. Caroline will be contacted directly by G-CAP with their decision regarding her approval to pursue employment opportunities with IDEADS. I think the letter is self explanatory but let me know if you have any questions.
5. **Rate Approval for Marcella MaGowan** - Attached is a copy of the revised TOR, CV, biodata and approval memo for the grant auditing work. Teresa and I are working on logistics and are finalizing the schedule and dates the attached memo details what remains to be done before the trip and lists the responsible party.
6. **Review of CEDERENA Financial Report** - I reviewed the first financial report submitted by CEDERENA with Karla and Anite. I briefed Anite on the review process and have returned with CEDERENA report which will be included in the next invoice to AID and deducted from the advance of the first disbursement.
7. **Grants Audit Trip**- See attached memo with timeline and outstanding issues.
8. **Parks in Peril Cost Accounting** - I trained the local staff in the correct procedures to

account for CAPAS funds related to the TNC Parks in Peril Program.

9. **Training of Anite Betancourt**

Summary of AID Visit - see attached agenda

Follow up

1. Copy of Contract to Anite
2. Medex for Monica
3. Contact Miriam Ostria re: Ancon audit
4. RA TOR from Tom forward to Lucia
5. Reminder e-mail on Parks in Peril
6. E-mail to Jan on Anite
7. Vouchers for Q account

Appendix D
Phase I Open Questions and Responses to
USAID Questionnaire

OPEN QUESTIONS AND RESPONSES

USAID QUESTIONNAIRE

CZECH REPUBLIC

March 1997

PROJECTS IN THE FIELD OF ENERGY PRODUCTION

QUESTION number 9: The use of information and experience acquired by participation in events connected with USAID projects in one's own work.

1. PROJECT 'EMERGENCY ENERGY'

Publicity for products aimed at heat conservation
Explanatory reports during project preparation
Acquisition of personal contacts and their use

2. PROJECT 'ENERGY PROJECT DOE'

Modern methods of apartment heating
Conservation of heating materials and energy in residential homes
New, relatively simple method of heating system design for buildings
City projects - power supply plans for cities, audit

3. PROJECT 'ENERGY SECTOR REGULATION'

Preparation of a regulatory framework in the Czech Republic
Work plan between MPO and USAID
Examples of market loosening and introduction of competition to energy production
Application in interdepartmental management on power-generation materials, comparison of plans submitted, experience, and facts

4. PROJECT 'UTILITY PARTNERSHIP'

Organizational structures
Organization of work
Preparation of a proposal for the organization of Czech electricity generation
Modelling of the development of the electricity system
Work with translated materials on the organization of electricity generation outside the Czech Republic
Preparation of contracts for the management of SW
Manner of contract negotiation with foreign suppliers
Style of legal work
Preparation for ecological certification of firm according to ISO 14000
Verification of one's own methods of investment evaluation and decision-making methods
Evaluation of events intended for the improvement of environmental protection at the enterprise level
Information on new electricity generation units
Predictions of the development of environmental legislation in the Czech Republic and its relationship with entrepreneurial activities

5. PROJECT 'UTILITY CONSULTANCY'

Investment in lowering of operational costs
Application of a financial model
Practical use of methods of financial planning for firms and aspects related to investment activity
Program of financial modelling implemented by Central Maine Power in PRE and methodological use for creation and implementation of mid-term corporate financial plans
Waste disposal projects aimed at industrial and communal waste, sanitation of polluted land
More detailed acquaintance with the state of the field in mature economies and experience with the operation of new technologies

6. PROJECT 'TECHNOLOGY TRANSFER NETWORK' (TTN)

Long-term contacts with firms and specialists in the USA
Heat regulation, ash and gas analysis
Project on heat plant modernization - prepared for realization
Preparation of introduction of EMS in connection with a.s.
Work on projects directed at the environment from the perspective of economic analysis
Enterprise preparation for ecological audit ISO 14001
Application of approaches during the working out of business plans
Long-term work with information on the organization of the electricity market in the USA and on investment evaluation
Formation of synthesis of a model for the optimal use of energy of electromagnetic poles

QUESTION number 13: The manner of contact

1. PROJECT 'EMERGENCY ENERGY'

I regularly receive information about the activities of SEVEN
My experience during the proposal of other USAID projects
Evaluation of personal gain
Further cooperation, participation in the EEBU conference
Organization of another conference

2. PROJECT 'ENERGY PROJECT DOE'

Solution of new tasks at the enterprise 2 Bulletin REC, questionnaires
Personal interest in the applicability of the project for the purpose of our evaluation of the level of the project
Invitation to participate in another EEBV conference

3. PROJECT 'ENERGY SECTOR REGULATION'

Preparation of energy law amendment (222/94 Sb.)
Agreed participation in another project

4. PROJECT 'UTILITY PARTNERSHIP'

Exchange of experience

Contracts for the retrofitting of electrostatic separators in EPRU II
Contract consultation.

Consultation on risk management

Information on the USA - SW market

Interest of American companies in participation in ČEZ projects as
suppliers

Specification of the ecological program planned and executed

Mailing of thematically specialized publications, summaries,
information

Use of SW PSSIE

Final evaluation of the project

UPP - cooperation between both parties

5. PROJECT 'UTILITY CONSULTANCY'

Preparation of other event aimed at the needs of the firm for 1997

Continuation of the work for Central Maine Power on the creation of an
electricity price regulation model and tariffs for MPO Czech
Republic. Regulatory model for MPO

Other possible projects

Extension of date of validity of offers

They constantly offer their services.

6. PROJECT 'TECHNOLOGY TRANSFER NETWORK (TTN)'

Invitation to other events

Participation in other events (conferences, seminars)

Preparation of other projects

Interest in new projects in the Czech Republic

Opportunity for other similar projects

Firm's presentation in the Internet and database of replacement parts

Mailing of TTN Newsletter.

Cooperation in the field of projects centered on the environment

Information on other possibilities for cooperation

QUESTION number 20: On what should similar projects concentrate?

What should be changed?

1. PROJECT 'EMERGENCY ENERGY'

Support domestic production in the field of energy conservation to the
maximum extent possible

Adapt to conditions in the Czech Republic

Set an appropriate target for participant selection, determine the
motivation for their participation and expectations

Concrete realization of energy conservation projects - the most
advantageous way of financing the project for subsequent users

2. PROJECT 'ENERGY PROJECT DOE'

Found technical solutions for energy conservation by way of cost calculation. Technical comparison of energy systems
Assistance during the application of energy conservation to Czech conditions
Complete analysis of energy conservation, beginning with the use of sources and ending with decreasing energy use
Proposal for energy conservation
Check up on and verify client needs
Create computer databanks of all Czech participants and all foreign specialists participating, including contact addresses
Good knowledge of English among all participants
Financial support for energy conservation from state and foreign sources

3. PROJECT 'ENERGY SECTOR REGULATION'

Harmonization of Czech energy statistics with international standards
Proposal of a concrete solution for problems in the energy sector in the Czech Republic
Draw nearer to conditions and possibilities in the Czech Republic, consult in advance with appropriate specialists for recommendations
Concentrate more upon concrete uses of similar events

4. PROJECT 'UTILITY PARTNERSHIP'

Exchange of experience with selected foreign organizations
Examine selected themes in more detail, i.e. price designation for electricity and charges for the use of transmission systems
Raise the quality of participant selection - expertise and language ability
Divide activities into single-purpose/short-term and long-term
Use the Internet
Electricity market models
Include semester-long study stays in the program (6-18 months)
Creation of legislation in the field of environmental protection
Unify norms and laws (at least in central and western Europe)
Use of feed-back for participants
Narrower and more concrete thematic subject matter with the participation of personnel with the same orientation
Possibility of study stay in some energy company with a focus upon management in the environmental field both inside the company and outside

5. PROJECT 'UTILITY CONSULTANCY'

More examples from practice, how the economic/financial side of American energy companies work
On market liberalization with energy sources and energy regulation
Continuation of cooperation in the field: energy price regulation, tariff setting
Quality selection of participants and cooperation in defining group goals
Recognize how things are done in the Czech Republic

Focus seminars concretely on problems, not general theory
Enable information flow in both directions to take place

6. PROJECT 'TECHNOLOGY TRANSFER NETWORK (TTN)'

Concentrate on projects that can be proved to bring significant energy conservation - support representatives of this orientation to the maximum extent possible
Greater emphasis on economizing with waste and technology for purification of small- and medium-scale machinery emissions
Examples of project realization
Orientation on identification and realization of concrete projects with a positive influence on energy development in the region
Protection of know-how - patent rights in the Czech Republic and abroad
Valuation of know-how
Human potential - motivational factors
Expansion of information and practical exercise of ecological management
Unify selection of participants according to profession and level of expertise
Unify (bring closer) participants' language abilities
Solve the cardinal problem in the field of electrotechnics - the undesirable effects of inharmonic courses of tension and current
Complete, comprehensive project evaluation for the region

PROJECTS FOR THE FIELD OF ECOLOGY

QUESTION number 9: Use in one's work of information and experience gained from participation in events that took place in the context of USAID projects

PROJECT 'TEPLICE'

Improved quality of project and general work performance
Introduction of new technical-analytic approaches (UC-MSD, VOC analysis, introduction of QA/QC)
Application of Receptor MODEL CMI37, application of trantionalization ČÚSMC PM10-PM2
Lectures at the environmental department as an example of the influence of emissions on health
Information on the influence of a polluted environment on health
Introduction of methods of molecular epidemiology
Continuing solutions for projects already begun
Applications for new problems and fields
Lecture and publication activities
Training of colleagues from the same field
Use of advanced techniques for the collection of atmospheric samples
I continually follow and use the information in editorial work
Use of new methods in behavioral toxicology, foreign cooperation:
new projects, transferral of experience to other workplaces
Expansion of detailed sperm analysis in young men

PROJECT 'SILESIA'

Activity of the ecological commission OKK during project planning and realization of ecological measures, during evaluation of the ecological level of the project
Analytic approaches to the determination of organic materials in the atmosphere
Measurement of PAM and VOC, application of QA/QC program
Prevention of and preparation for industrial accidents useful during work on my doctoral dissertation
Confirmed and corrected aims for the modernization of production equipment
Use of risk analysis and risk management for the environment; agreement between Ostrava and Ostramo Vlček a spol. s.r.o., soil decontamination
Mastery of methods of risk assesment/risk management
Coordination with the program PEARE and other bilateral cooperative programs
Practical use of methods of risk calculation in the environment, their management
During negotiations with district officials on whose territory our company intended to arrange a temporary storehouse for ZN waste
During conflictual negotiations with clients
Emission reduction from coke plants, reduction of pollutants in waste water through a change in technology
Effective approach to problem solution
Negotiations with public organs on preparation of constructions influencing work and natural environments
More comprehensive approach to the problem of sanitation of old

ecological contamination; knowledge from courses can be used only
now
Solution of demonstration projects (coke plants + Carolina)
Use in instruction
Work on the Třinec power plant project
Know-how benefit:
Preparation of industrial waste incinerators
Solution of industrial burden placed upon the environment; ecological
evaluation of enterprises
Modelling of atmosphere cleansing
Orientational grounding on the state of the environment in the Czech
Republic

PROJECT 'CHEMICAL EMERGENCY PREPAREDNESS'

Preparation of legislation and during training courses
Preparation of an emergency plan
I used the experience during a similar course in the context of the
silesia project
I use the experience gained in the context of state administration

PROJECT 'WASTE MINIMALIZATION'

support for the completion of events in the environmental field
support and operation of new technology and minimalization of waste
Lowering the amount of waste from the spreading of varnish materials
in varnish plants
Cooperation on projects in the program "Care for the Environment"
commissioned by the Czech Ministry of the Environment
Use as a part of the activities of the Center for the Prevention of
Pollution CEMC.
Introduction of a system of ecologically oriented management according
to ISO 14001.
Legislation preparation for waste management
Project for the minimalization of emissions VOC from equipment for the processing of
crude oil and the production of petrochemicals
Effort to introduce EMS system at the workplace
Use of methodology and instrument techniques for the identification of
VOC emissions
It is possible to use data and materials during university instruction
on preventative methods for waste minimalization in industry.

PROJECT 'EAPS'

Higher level of understanding of municipal needs
Construction and operation of boiler room
Presentation of the significance of the project for the improvement of
the environment in the district

PROJECT 'ETP'

Manufacturing process
Use during work on curriculum design for ecological subjects
Use during scientific work and university instruction
Internal methodological approaches during monitoring of organizations
Business plans, market research, marketing.

Discussion and study of legal judgements according to law 244/1992 sb
on assessing the influence on the environment
Penetration into the wider context of the problem of ecological audits
Selected data and approaches for use in connection with lectures
In connection with E.I.A. activities
Negotiation, closing contracts
Preparing company growth strategy
Problem-solving in the area of the environment
Preparation of individual projects, problem solution, and travel
planning
Introduction of a "register of leakages"
Communication with the public, especially during EIA judgement process
Project for financing ecological investment - expansion
Organization of lectures and visits to ČHKO
Organization of summer camps for children - themes: drama

PROJECT 'CCAP'

Access to economic analyses

PROJECT 'ELI'

Creation of an EPS organization - ecological legal service
Foundation of an EPS according to the American model of legal clinics

PROJECT 'HIID'

University instruction
Mutual assistance during project
Project presentation and recommendation questionnaire
Publication and information activity

PROJECT 'ENVIRONMENTAL RISK ASSESSMENT'

Working out a methodology for the evaluation of ecological risks
Assessment of influence on the environment - EIA.
Work on documentation for assessment of influences on the environment
Working out a methodology for Health Risk Assessment (HRA) for the
Ministry of Health
Use during risk analysis for FNM (National Property Fund)
Studies evaluating health risks

PROJECT 'GEOGRAPHICAL INFORMATION SYSTEM'

Use of GIS in the department - support for the development of the
departmental network
Application of knowledge in projects "Modelling of changes in
topography as a result of chalk mining" (Tmaň cement works)
course teaching at VŠCHT Praha (Chemical-technical University) and
development of new subjects of instruction

PROJECT 'PARTICIPANT TRAINING'

New information and experience in the field of risk assessment/risk management
Pedagogical, lecture, consultative activities
Sharing of information with other interested parties
Examples for use in work
Preparation of legislation; exercise programs
Evaluation of the risk of chemical accidents in industry
University instruction (mining)
Changes in approaches to work, organization of work
Work with nongovernmental organizations, media, manner of project preparation
US energy conservation programs - DSM project in Czech gas sector

QUESTION number 13: Manner of contact

PROJECT 'TEPLICE'

Continual solution of projects already in progress
Start of new applications
Discussion concerning the course of the project
Long-term cooperation with one of the project participants
Cooperation in the field
Correspondence, additional information, sharing of data and experience
During securing of similar work in another region of the Czech Republic
Cooperation during project presentation
Invitation to participate in other events

PROJECT 'SILESIA'

Application of project results on a change in methodology used in the Czech Republic
Other activities ICPS
Offer of other seminars, information on other projects
Facilitation of other courses
Project evaluation
Consultation regarding seminar preparation for autonomous units in Ostrava
Consultation concerning the development of other stages of the project
Assessment of the success of ecological events
Consultation with US EPA
Consultation in the field of protection of the atmosphere
Work on other parts of the project
During presentation of results in connection with the project SILESIA
Cooperation on use for similar courses in the Czech Republic
Mailing of written materials and lectures

PROJECT 'CHEMICAL EMERGENCY PREPAREDNESS'

Further cooperation, provision of information
Offer of further instruction in connection with the project SILESIA
Cooperation during solution of safety work
Exercise course "Safety Management in Industry" 1996

PROJECT 'WASTE MINIMALIZATION'

Verification of project results by representatives of USAID
Interest in the bases for publication WEC presenting program results
Continuation of the project
Interest in support from SFZP during realization of this project
Offer for further cooperation
New seminar
Assessment of parliamentary bills
Invitation to presentation
Project presentation, invitation to CEMC.
Acquaintance with results of the application of methodology
Cooperation during solution of other tasks in the environmental field
Use of the project enterprise waste minimalization
Foundation of an association of cleaner production course participants

PROJECT 'EAPS'

Continuation of the project
Meetings for the assessment of individual parts of the project
Participation in other seminars
Sharing of specialized information
Boat trip Ústí - Hřensko during USAID program evaluation

PROJECT 'ETP'

Questionnaire concerning the course of the seminar
Other seminars concentrated upon environmental problems
Further cooperation
Follow-up seminars: interest in personal gain from seminars in my work
Project evaluation
Mailing of new study materials
Search for opportunities for cooperation
Offer of consultation
Continuation of courses
Presentation of results
Acquisition of specialized literature
Acquisition of new contacts in the field
Request for creation of an evaluative study

PROJECT 'CCAP'

Cooperation
Participation in other seminars

PROJECT 'ELI'

Contacts concerning the work of ecological legal service
offer of other study trips/stays
During the visit of the representative in Prague

PROJECT 'HIID'

Work needs
Preparation of new projects
Possibility of further cooperation on specialized projects
Proposals for work on other projects

PROJECT 'ENVIRONMENTAL RISK ASSESSMENT'

More information on the project
Other seminars, invitation
Follow-up project that was arranged
Continuation of project
Creation of a specialized group
Help during organization of other events, participation in instruction
Solution of concrete problems in the region
US EPA in connection with course preparation in the Czech Republic
Questionnaire completion
Provision of materials
Mailing of supplemental information
Request for publication

PROJECT 'GEOGRAPHICAL INFORMATION SYSTEM'

Further development of GIS in the department
Use of results and continuation in solution of themes connected with
the project

PROJECT 'PARTICIPANT TRAINING'

Contact p. ing. Piska in connection with visits on project SILESIA
USAID - W.D.C., questionnaire

65

QUESTION number 20: On what should similar projects concentrate?

What should be changed?

PROJECT 'TEPLICE'

It is necessary to assess knowledge gained together, as a group
Clear formulation of goals and monitoring of their fulfillment
Define the relationship between foreign and domestic partners
Energy policy and sustainable development
Provision of information to Czech partners
Specialized background
Clearer formulation of the conception
Less expansive projects; define project goals/conditions more clearly
Better project preparation oriented instead toward a completely
different work style
Constantly specify the original suggested conception
Project focusing on the existence and growth of ecosystems
Orientation toward long-term projects on the internal aspects of
health
Research on the influence of the environment on the health of selected
groups
Periodically make the public aware of the state of the project Understandable
interpretation of results in wider contexts
Project preparation, participation of Czech institutes
Concentrate on information for concrete population groups
Cooperation with other specialists and laboratories
Ensure a larger number of specialists from regions
Increase the applicability of output and its publicity
Increase the effectiveness of research
Change the manner of financing
Increase effectiveness of use of money, materials, time spent

PROJECT 'SILESIA'

Application of scientific and research results on concrete events
Develop given problems in other regions
Concrete technical assistance during sanitation and monitoring of old
sites of industrial waste with storage of dangerous waste
materials
Better presentation and determination of a way to activate a wider
circle of those accepted
Deepening of knowledge gained
Practical knowledge of equipment abroad
Seminars for specification of conditions of the environment
Possibility to communicate more with other participants concerning
one's own problems
Necessity of concrete application in practice in the Czech Republic
Assistance for autonomous organs in the environmental field
Concretely concentrate on problems of agglomeration and metallurgy
Continue with the same general intention/concentration
Concentrate upon a concrete problem and solve it in a short period
Adjust some materials to conditions in the Czech Republic
Project preparation and participation of Czech institutes
Respect acquired knowledge and experience in the Czech Republic in the
field of the environment
Introduction of discussion of environmental problems to the production

sphere
More publicity for the project (specialist and popular publications)
More training of practical abilities
Use of biomasses and restructuralization
Projects aimed at workers in administration (mayors, members of local elected offices)
Area of water conservation and waste transport
Carry out projects for long-term (periodic) training in a given problem
Methods of management of large and complicated projects
Relationship between valid legislation in the Czech Republic and approaches presented

PROJECT 'CHEMICAL EMERGENCY PREPAREDNESS'

Repetition with the same aim/orientation - relevance
Fewer participants, more case studies

PROJECT 'WASTE MINIMALIZATION'

Internships abroad and study periods for specialists - not only for company directors
Specialize these events for related fields
Pressure on legislation preparation
Greater connection with legislation
Narrower connection of projects for waste minimalization - cleaner production - EMS and its cooperation
Support for organizations that are actively trying to reduce waste instead of those that fail to obey laws and regulations or that do so only because they are forced by legislation
Creation of smaller sections to concentrate on specific problems
Popularization of environmental themes among politicians and state officials
Strengthen demonstration of waste minimalization methods
Practical experience in running of EMS in practice
Projects should be based upon our real conditions (financial situation of firms)
Narrower concentration on certain problems
In the field of waste minimalization it would be useful to visit leading firms and become personally acquainted with practices
Greater widening of methodology in the Czech Republic
Development programs for the minimalization of communal waste

PROJECT 'EAPS'

Perspective for selection of participants: those who are best able to use experience gained
Project support from domestic institutions
Legislation. Training concentrated on environmental management
Wider combination of participants (more satisfied)
Supplementary cooperation with ministerial fund
Regular organization of international meetings of specialists

PROJECT 'ETP'

Concentrate more on political advocacy of changes
Impact of ecological legislation upon the economy
Information on systems that work well and can be applied in domestic conditions
Cultivation of the specialized/professional segment of the public
How to cooperate with firms and state offices - convince them that cooperation on certain projects is in their interest as well
Presentation of successful domestic and foreign projects
Greater implementation of Czech legislation
Meeting concentrated on problem with a given theme
Repeated meetings of participants with project leaders
Support of international contacts
Summary review of problems studied
Provide lectures in written form
Team work during preparation and project realization
Attempt at greater applicability in Czech conditions (i.e. banking sector)
Practical knowledge and experience
General level of information about events prepared that are connected with the environment
Relevance and up-to-date information: contact with the newest knowledge from scientific developments throughout the world
Instruction component at universities and middle schools (wide scope of problem-solving)
Linking together of Czech and American approaches
Include a larger number of participants, expand to other regions

PROJECT 'CCAP'

In another country or at least in another city in the Czech Republic
Continue with the seminar theme
Analyze Czech experiences
Greater familiarity on the part of foreign specialists with conditions in the Czech Republic
Break down approaches toward environmental protection and toward energy generation into individual phases/segments

PROJECT 'ELI'

Make more use of comparisons with the legal system of the country from which the participants originate
Prepare program following consultation with participating individuals and schools

PROJECT 'HIID'

Aim for application possibilities at mid-sized and small enterprises
Joint research (projects) with other countries
Greater support for the putting of results into practice
Make exercises more concrete and practically applicable

PROJECT 'ENVIRONMENTAL RISK ASSESSMENT'

Applicability in other spheres
Practical training/instruction
Case studies - experience from the USA
Define contents better in the invitation in case a change is possible
Repetition of exercises; make more relevant
Insufficient information from own field - territorial planning,
experience, and methods used abroad
More detailed courses expanding approaches in risk assessment for
carcinogenic risks, developmental and reproductive toxicity
Practical use of specialized systems, specialized software
Training for risk assessment of old contamination: stores of hazardous
waste
Maintain the participation of foreign specialists: don't rely upon
Czechs - too passive
Creation of an "example study" from some concrete conflict
Use of practical results from application of methods in the Czech
Republic
Focus: management of ecological risks, risk communication - at least a
part of the event should take place in the USA - greater
opportunity

PROJECT 'GEOGRAPHICAL INFORMATION SYSTEM'

Project could have an American manager in the Czech Republic who would
take care of the long-term use of project results
Working out a concept
clarification of environmental protection legislation

PROJECT 'PARTICIPANT TRAINING'

More often, more, more deeply - more professional
Preference should be given to individually-proposed stays according to
the needs of participants before groups with relatively wide
interests
Careful selection of contact persons
More informal meetings
Extend the study stay by one week
Prepare work training - case study
Increase work contacts

TTN NEWSLETTER

Level of contents insufficient
Improve quality of translation
Concentrate more on modern technology for steel mills
More information on finding foreign sources of finance
More information on restructuralization of iron smelting
Monothematic special issues
None
Range of contents should be spread over entire Czech Republic

BULLETIN LINKED WITH THE PROJECT REC

Space is provided to ecological initiatives without qualified
opinions, i.e. power generation
More information
The bulletin suddenly stopped coming and I don't know why
Greater connection with problems in the Czech Republic; more
commercial information, less attention to EGO
I am not a regular reader of the bulletin; I am unable to assess it.
Better orientation of issue contents (especially on the first page)
Wider dimensions/contents, more information
REC is a good informational magazine
I haven't had time to read it; I don't even think I ordered it.
The theme of risk assessment is probably outside the Bulletin's
profile.
Unfortunately I don't receive all the issues at my private address.