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**Midterm Evaluation of Ecologically
Sustainable Development's Activities
in the Lake Baikal Watershed**

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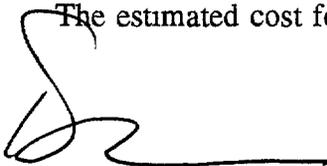
Foreword

This report provides a midterm evaluation of Ecologically Sustainable Development's activities in the Lake Baikal watershed, which USAID/Moscow is supporting through a \$3 million, four-year cooperative agreement. The project's goal is to implement environmental practices that promote ecologically sustainable development and the protection of biological diversity in the watershed. In accordance with USAID's statement of work for the evaluation, the report assesses and documents the project's impact and effectiveness.

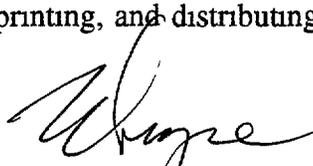
The intended audience for this report is broad. It includes officials within USAID and the Government of the Russian Federation. In addition, the report has potential interest to other readers as well. Lake Baikal contains approximately 20 percent of the earth's fresh water, and the surrounding watershed supports tremendous biological diversity. USAID's support thus represents a commitment to preserve these resources for future generations while improving the quality of life for the present generation.

The report indicates that there is much that Ecologically Sustainable Development and its many Russian counterparts have done well, but the report also provides recommendations to address some perceived deficiencies. If the recommendations are followed, the project can operate more effectively. USAID/Russia will monitor the implementation of the recommendations and, therefore, will be the best judge of the evaluation's effectiveness.

The estimated cost for writing, printing, and distributing this report is \$2,500.



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Special thanks are due to Dan Plumley, ESD's field program director, and its three regional program coordinators, Irina Glazyrina (Chita), Sergei Shapkhayev (Ulan Ude), and Maria Safonova (Irkutsk). All four provided invaluable assistance in arranging meetings, transportation, and accommodations in the three regions.

Marina Perfilova of USAID/Russia's Office of Environment and Health and the project officer for the activity being evaluated is also due a note of appreciation for her help and guidance in providing useful background materials and for arranging meetings in Moscow.

The team's interpreter, Andre Dakar, provided professional services that were invaluable to the team. His enthusiasm and willingness to work for long hours under sometimes difficult conditions is much appreciated.

The evaluation team provided a briefing to the staff of USAID/Moscow on May 23, 1996. A draft evaluation report was given to the mission's Office of Environment and Health the same day and to ESD a few days later. The present evaluation responds to comments received from USAID and Ecologically Sustainable Development. For ease of use, the report's key recommendations are in bold print.

Executive Summary

USAID/Russia approved a four-year cooperative agreement with Ecologically Sustainable Development, Inc (ESD) in May 1994, to support efforts to promote sustainable development in the Russian portion of the Lake Baikal watershed. This agreement demonstrates the U.S. commitment to sustainable development and the conservation of biodiversity. The Bush-Yeltsin Joint Declaration of June 17, 1992, provided an important thrust for achieving this goal.

The present project seeks to demonstrate that environmental quality and economic development are inextricably linked. The unifying concept for achieving this goal is contained in *Lake Baikal in the Twenty-First Century: A Model of Sustainable Development or Continued Degradation, A Comprehensive Program of Land-Use Policies for the Russian Portion of the Lake Baikal Region* (1993). This is referred to as the *Comprehensive Program*.

In support of the project's broad goal of promoting sustainable development, the USAID/ESD agreement indicates that ESD intends to (1) provide technical assistance in budgeting, staffing, project review, and program development to the region's land-use departments, and (2) implement model projects related to agriculture, ecotourism, sustainable forestry, land use, and settlement plans for zoning.

As a result of USAID's initiative and the international community's interest in the future of Lake Baikal and its watershed, local leaders are now working with governmental agencies, nongovernmental organizations, and the private sector to protect the area and to promote sustainable development. The ultimate goal is for the region to be a model of sustainable development based on agriculture, education, forestry, mining, science, and tourism, while prohibiting development detrimental to the environment. The activities now being implemented are intended to serve as the foundation for land-use reform throughout the watershed and to assist in determining equitable land values and tax rates.

In evaluating ESD's many activities, the evaluation team considered the context in which they are being implemented. The large size of the project area and the great distances between project sites makes it difficult to manage. It is difficult to communicate because of the unreliable phone services. ESD's project is also faced with many economic, political, and legal obstacles that affect its ability to accomplish some of the project's objectives. In spite of these difficulties, ESD can claim credit for many significant accomplishments. These include the following:

- o Increased local and regional capacity in land-use planning and interagency coordination on natural resource issues. ESD has introduced a land-use planning approach that includes sustainable development, environmental protection, and recognition of traditional and cultural practices. Through effective leadership and public participation, ESD has generated "grass roots" support for most of its project activities. ESD has had particular success in introducing geographic information systems (GIS) as a useful tool for land-use planning. Before ESD's involvement in the region, GIS was relatively unknown.

- o ESD has initiated the development of a regional approach for ecotourism and a plan to develop ecotourism as a component of ecologically sustainable development in the region. Promotional material to highlight the region's natural and cultural attractions have been prepared, and a regional bed and breakfast center is being created with a database of such establishments in the Lake Baikal region. The center will be a tourism/ecotourism association whose activities will include promotion, data gathering, training, and publications.
- o Successful agricultural activities that utilize local Russian expertise, training, and capacity-building activities have been developed. These activities include several examples of sustainable agriculture that are well on their way to self-sufficiency. Several of them have the potential to become replicable models.
- o Development of protected areas for valuable ecological and cultural sites has been a highlight. The *Comprehensive Program* has served as a major catalyst for the development of a regional network of protected areas, the primary means to protect the region's significant biodiversity. ESD has also assisted local and regional authorities with the legal means to protect areas of significance. For example, the passage of the Okinsky Declaration by an overwhelming majority of voters in the Okinsky Raion has set the course for the protection of the Okinsky National Anthropological Reserve that will protect critical habitat for endangered species as well as important cultural sites of the Buryat and Soyot peoples.

Such accomplishments are significant, but the evaluation suggests a number of ways that future program activities can be improved.

- o ESD should prepare clear statements regarding the goals and intended end results for each project site or thematic emphasis (such as ecotourism) and determine what indicators should be used to measure progress toward achievement of the goals. USAID should collaborate with ESD in developing expected outcomes.
- o ESD should prepare descriptions of the model approaches to sustainable development (e.g., for sustainable forestry, ecotourism, and sustainable agriculture activities) indicating how these activities can be replicated in other areas. Lessons learned in the development of these activities should also be described. Doing so will assist USAID with the new Replication of Lessons Learned (ROLL) project, which emphasizes practical ways to achieve sustainable development. USAID/Russia's current strategy is to support additional complementary work through the ROLL project.
- o During the next two years, ESD's American and Russian project staff should increase their consultation with key federal officials about the project's activities and encourage coordination between oblast and federal authorities. Working from the top down as well as from the bottom up will be especially important to the sustainability of those activities that need long-term financial support from the Russian Federation.

- o ESD should improve coordination among its project components. For example, ESD should develop a plan for regular exchange of information among site directors so that experience can be shared, and successful activities can be developed and used as models.
- o USAID and ESD should increase their collaboration during the remainder of the project to assist each other to achieve the project's overall objectives. This would involve USAID staff becoming more familiar with ESD's project activities in the field through site visits. USAID should also determine, perhaps by means of a workshop to address the critical issues that ESD identifies, how sectors other than environment might assist in developing the integrated, holistic model described in USAID's definition of sustainable development. This might be done under the auspices of the new ROLL activity. The evaluation team recommends that ESD should provide an assessment of the critical needs that must be addressed to help ensure each project activity's completion and sustainability.
- o In regard to coordination of ESD activities with other donors, the evaluation team recommends that USAID convene a workshop of other donors interested in the Lake Baikal area to determine strategies for collaboration of activities at specific sites in order to build on ESD's successes and to avoid duplication of effort.

In conclusion, ESD has made considerable progress in establishing "grass roots" support for its activities in the Republic of Buryatia and the Chita and Irkutsk Oblasts. Its *Comprehensive Program* has also served as a valuable unifying concept for promoting sustainable development in the region. The *Program* is a major catalyst for the development of a regional network of protected areas. ESD's efforts fit well with USAID's overall assistance strategy and contribute significantly to the Agency's strategy for sustainable development.

ESD's approach to sustainable development can become one of the best in the world. The need for such programs is urgent throughout the world, and the fact that this one is being implemented with USAID's support in one of the most globally significant environmental areas makes it valuable to the rest of the world.

ESD's efforts can provide a useful model for USAID, especially if the "lessons learned" are applied. One of the most important lessons is that planning and management to achieve sustainable development in any region must include programs and sectors other than environment, so that the social and economic needs of people can be addressed. Environment sectors cannot do the job alone. Sectors such as health, education, energy, and activities dealing with social services, and small business development should also be involved. Without their deliberate participation and support, environmental programs themselves may be unsustainable.

I Introduction

Before the Soviet Union's demise in 1991, environmental protection was neglected and the country's natural ecosystems declined as a result. Since 1991, Russia's economic situation has led to dramatic cuts in environmental activities and increased pressure for further exploitation of natural resources to bolster economic output.

It was under these emerging conditions that the governments and people of the Buryat Republic and the Irkutsk and Chita Oblasts turned to their own scientists in the Siberian Branch of the Academy of Sciences and to the Center for Citizen Initiatives (CCI) in the United States for assistance in developing *Lake Baikal in the Twenty-First Century: A Model of Sustainable Development or Continued Degradation, A Comprehensive Program of Land-Use Policies for the Russian Portion of the Lake Baikal Region* (1993) (Hereafter referred to as the *Comprehensive Program*). Lake Baikal and its watershed are among the world's unique natural resources, the lake contains approximately 20 percent of the world's fresh water and supports tremendous biodiversity. Various Russian and American donors supported this effort, including Davis Associates, which later became Ecologically Sustainable Development, Inc. (ESD), the focus of the present evaluation.

ESD's efforts resulted in a framework for a sustainable land-use model for the Russian portion of the Lake Baikal Watershed. The concept of the project and the accompanying map were presented to the donor community for possible funding. The budget of approximately \$800,000 for the project was raised from three sources: regional governments in Russia, contributions of labor from Russian and American specialists, and U.S. foundations, including the John D. and Catherine T. MacArthur Foundation, the W. Alton Jones Foundation, the Weeden Foundation, the Trust for Mutual Understanding, and the Compton Foundation. Davis Associates donated volunteer time but not direct financial support.

USAID began supporting the efforts in September 1993, through a \$420,036 cooperative agreement with CCI. In May 1994, USAID approved a cooperative agreement with ESD for \$3 million. The cooperative agreement expires in April 1998.

A Purpose of the Cooperative Agreement

The cooperative agreement provides support for a program to promote ecologically sustainable development in the Russian portion of the Lake Baikal region and thus demonstrates a U.S. commitment to sustainable development and biodiversity conservation. The Bush-Yeltsin Joint Declaration of June 17, 1992, to conserve the unique ecosystems of Lake Baikal provided an important thrust for achieving this goal.

The present project seeks to demonstrate that environmental quality and economic development are inextricably linked. In addition to the project's broad goal related to sustainable development, the agreement also indicates that ESD intends to 1) provide technical assistance in budgeting, staffing, project review, and program development to the region's land-use

departments and other branches of the region's governments, and 2) to implement model projects related to agriculture, ecotourism, sustainable forestry, land use, and settlement plans for zoning

As a result of the initiative associated with the cooperative agreement and the international community's interest in the lake's future, local leaders are now working with governmental agencies, nongovernmental organizations (NGOs), and the private sector to protect the area and to promote sustainable development. The region is intended to be a model of sustainable development based on agriculture, education, forestry, mining science, and tourism while prohibiting development detrimental to the environment, such as nuclear energy plants and toxic waste producers, from operation in the watershed. The activities being implemented are intended to contribute to the technology and knowledge essential to the task of land-use reform in the region. ESD recognizes that its specific activities affect only a small percentage of the region's land area and economic activities. Moreover, many factors that affect sustainable development are beyond ESD's control. Despite these situation, existing project activities can provide useful examples for the reform of land use and sustainable development.

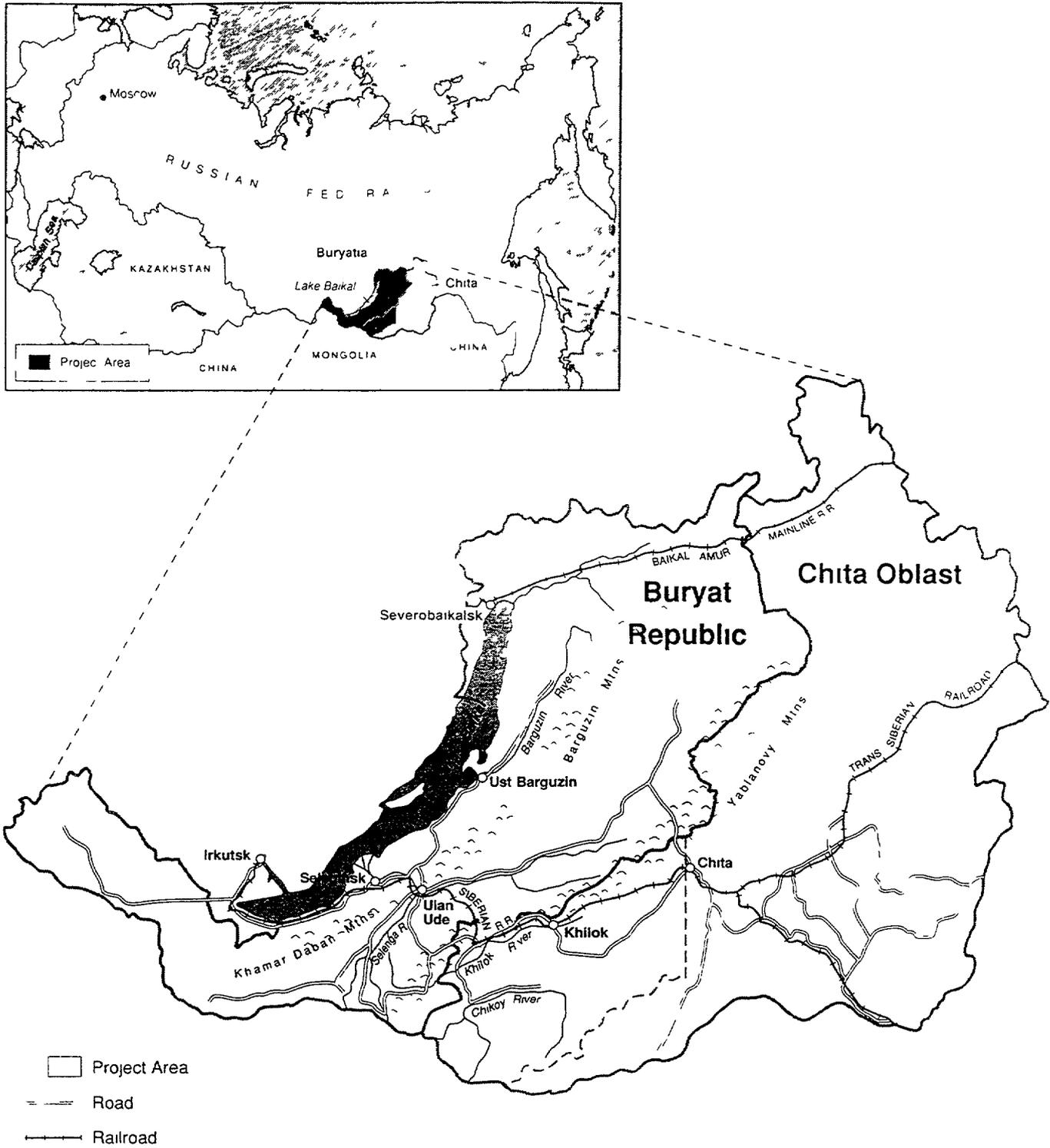
B Objectives and Methodology

USAID's Environment and Natural Resources Policy and Training (EPAT) Project conducted this evaluation of the ESD project in April and May 1996. The statement of work and the work plan, which USAID/Russia reviewed and approved, are included in Appendices A and B. In accordance with USAID's procedures for evaluations, a major purpose of the present assessment is "to assess the continuing validity and relevance of an effort and to suggest such modifications as may be required to increase the likelihood that the effort will achieve its objectives."

In accordance with the statement of work, the evaluation team was asked to 1) assess and document the project's effectiveness and impact in strengthening the capacity of local governments and NGOs in Buryatia and the Irkutsk and Chita Oblasts to implement environmental management that promotes sustainable development and biodiversity protection in the Lake Baikal region, 2) assess and document the project's effectiveness and impact in promoting market-based incentives for natural resources management, 3) evaluate ESD's technical and financial management relative to meeting program objectives, 4) evaluate how the project fits into USAID's assistance strategy and recommend ways to coordinate the project with activities by other U.S. and international donors, 5) determine if and how the project should be structured or focused on specific goals, 6) determine the degree of the project's sustainability, and, 7) determine if additional activities should be undertaken in the future to ensure the project's sustainability.

To accomplish these tasks, the team conducted interviews in Moscow, Washington, D.C., New York City, and in Elizabethtown, New York, ESD's headquarters. In addition, two team members spent 23 days in Buryatia and the two oblasts, where field sites were visited and additional interviews conducted. Figures 1 and 2 provide maps of the watershed and the project's field sites. A list of people contacted and sites visited can be found in Appendix C.

Figure 1 Lake Baikal Project Area



Model Project Site Legend



Okinsky National Park NAR Project

Bolshoye Golousnoye Project

Olkhon Raion and Island Project

Kabansk Technical Aid Project

Kizhenga Farms Project

Kyakhta Historic Restoration Project

Arakhlay Lakes Wildlife Refuge Project

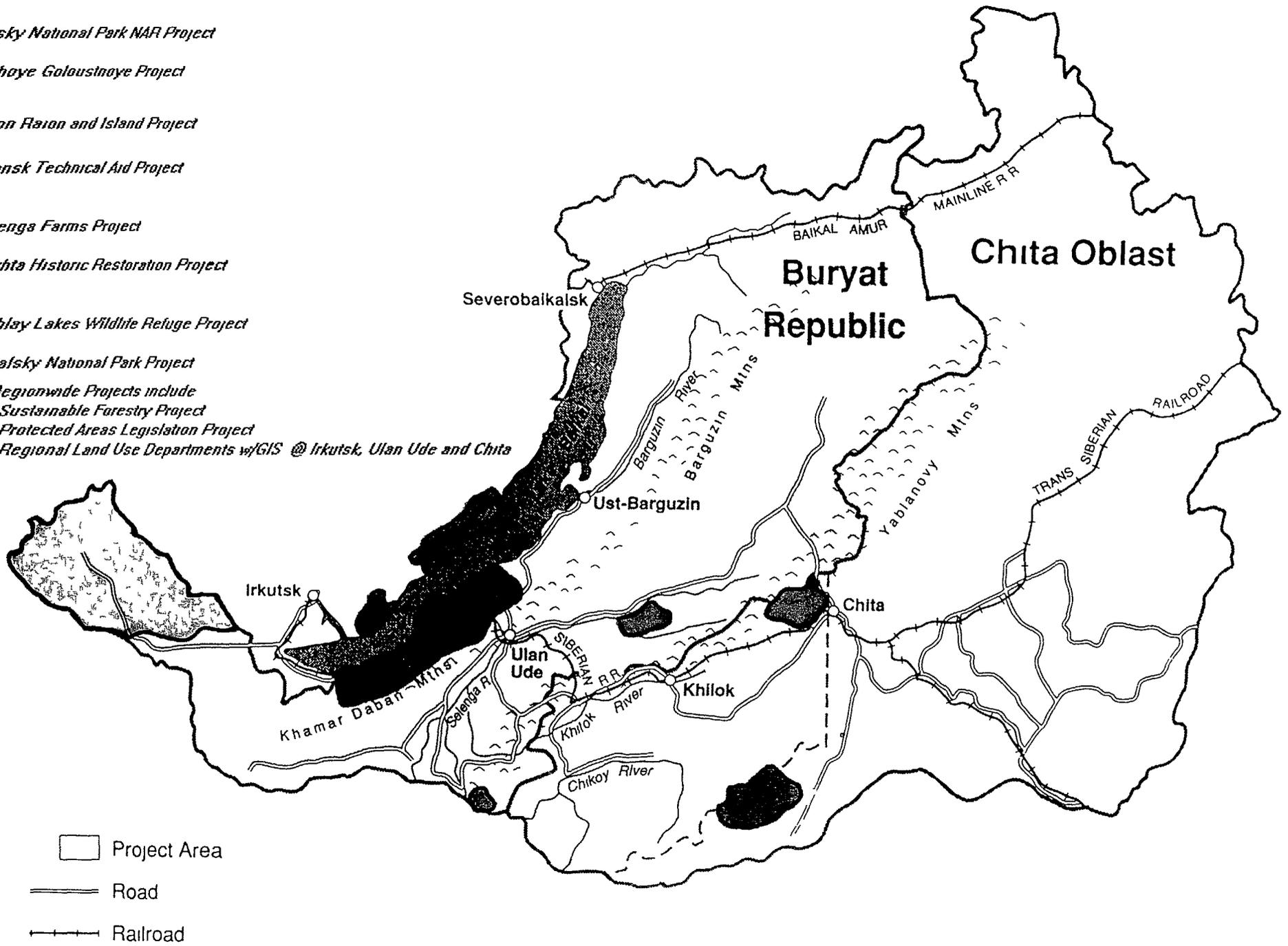
Burkalsky National Park Project

Regionwide Projects include

Sustainable Forestry Project

Protected Areas Legislation Project

Regional Land Use Departments w/GIS @ Irkutsk, Ulan Ude and Chita



□ Project Area

— Road

—+— Railroad

LAKE BAIKAL MODEL SUSTAINABLE DEVELOPMENT PROJECTS

C Overview of Field Evaluation Limitations and Constraints

The results of all evaluations must be placed in context. Tasks easily achieved in one setting may be impossible in another. For this reason it is important to consider the context in which ESD operates in the Lake Baikal region.

Working in the region offers challenges and difficulties. One of the most obvious difficulties is the size of the project area and the great distances between project sites. For example, the evaluation team covered over 2,700 miles on the ground. Travel was done by train, car, and jeep to the more remote areas. It took six hours by train and seven hours by jeep over dirt and snow-covered roads for the team to reach Okinsky Raion. With the factor of distance also goes the problems with reliable communication. It is often difficult to complete a phone call, and e-mail communications can be irregular. The activity on Olkhon Island poses particular difficulties, access is by open water or over ice. ESD's field manager had not been able to get to the island over the course of three visits to the region. The evaluation team was also unable to visit the island because the ferry had not begun operating for the season.

The ESD project is also faced with political and legal obstacles that affect its ability to implement some objectives. Of immediate issue is the June 16, 1996, presidential election. All of the officials and project participants the evaluation team spoke with stated that they were reluctant to make decisions about financing, business start-up, or assistance to projects until the elections are completed. There was too much uncertainty as to what the election might mean or changes it may bring. Small business development faces tax and legal issues. Several respondents indicated that they are unable to start businesses because the license fees and businesses taxes are too high. The Republic of Buryatia and Irkutsk Oblast recently passed an all-Russian tourism licensing policy that could inhibit small-scale tourism. The policy requires each operator to have a registration number and pay a \$600 fee, which is beyond many small operators so that each tourist business can provide an official invitation for a Russian tourist visa.

Agricultural ventures have similar issues with which to contend. For example, wool processing is thought to be a good way to enhance a primary product so farmers can receive more money. While this is valid assumption in a market economy, it is not always the case where there is only one wool-buying monopoly in a region. In many instances project development is based on market incentives, but these incentives are not valid where a market economy does not exist. Other factors include the disagreement between local and regional administrations and the federal government and the current uncertainty about what the "Self Governance Law" means and the responsibilities of the governing parties.

During the evaluation process the team met with over one hundred people involved with, or having knowledge of, the project. These visits were insightful but time constraints and lack of an established relation with the people resulted in limited information in some instances and conflicting information in others.

II Accomplishments

ESD has achieved some significant results, but ESD's staff recognizes that this is only a modest beginning in the quest to achieve sustainable development in the Lake Baikal watershed. The work on the project activities has successfully involved Russian partners and has developed program activities with the potential to make long-lasting change in the Lake Baikal region. Some of these accomplishments include:

ESD and its Russian counterparts have worked successfully to *Increase local and regional government capacity* in land-use planning and interagency coordination on natural resource issues. ESD has introduced comprehensive concepts in land-use planning that include sustainable economic development, environmental protection, and recognition of traditional and cultural uses of land.

- Experience in Arakhley Lakes developing protected areas has been transferred to other parts of the territory through assistance to a group working on the establishment of a protected area in another part of the Chita Oblast.
- ESD has worked with raion officials to establish a user fee for group use of Arakhley Lakes. Income from the fee will be used to support environmental work in the refuge.
- The Baikal Regional Department of Chita has facilitated coordination on land-use activities with the federal Forest Service, raion administration, Chita Technical College, Chita Institute for Natural Resources, Pedagogical Institute, Buryat Association, and other NGOs resulting in closer cooperation in land-use planning and implementation.
- The federal Forest Service in Chita has now opted to create a new ten-year plan using a multiple-use concept for forest lands based on the *Comprehensive Program*, which ESD originally developed, with recognition of recreation and tourism as an important components of forest planning.
- Technical assistance provided through ESD has contributed to the understanding of effective legal mechanisms for land-use regulation among regional government officials and parliamentarians.
- Activities at Olkhon Island have served to unite officials of the raion, Pribaikalsky National Park, the Olkhon Island settlement of Khuzir, oblast-level scientific institutions, the oblast's Committee on Ecology, the public, and representatives of NGOs in comprehensive land-use planning.
- In the Kabansk Raion, the project has created 19 base-map thematic layers ranging from geology and hydrology to terrestrial ecosystems and anthropogenic impact zones. This information, together with integrated satellite photographic research with the Irkutsk Institute of Geography and analysis with geographic information systems (GIS) by the Buryat Regional Department on Lake Baikal, has helped to forge a partnership agreement between the Kabansk Raion, the Committee on Land Use, Committee on Architecture and Construction, and Buryatia's Committee on Ecology to work to complete land-use planning for the raion.

ESD has initiated *the development of a regional approach for ecotourism* that is economically beneficial to the people with acceptable levels of environmental and social impact. ESD has successfully incorporated locally owned ecotourism ventures into its comprehensive land-use plan as one component of building a stable and sustainable economy in the Baikal region. This work may provide valuable lessons for other parts of Russia.

- ESD has completed a regional assessment of ecotourism potential and a description of significant sites for tourism
- ESD has prepared promotional material to highlight the region's cultural and natural attractions
- A regional tourism guidebook with maps and sample itineraries has been developed and distributed to tour operators in the United States and Europe
- "Bed-and-breakfast" training seminars were presented at three sites in the region, with approximately 40 potential operators attending. More seminars are scheduled for 1996 and 1997
- A regional bed-and-breakfast center is being created with a database of such establishments in the Baikal region and international tourist firms
- A school for ecotourism has been established at the Baikal Institute of Natural Resource Management to train ecotourism managers. To date approximately 200 students have participated in ecotourism courses

ESD has *successfully promoted sustainable agricultural activities* that utilize local Russian agricultural expertise, training, and capacity-building activities, value-enhancing primary products through small business development, and consideration of traditional and cultural agricultural activities. ESD's activities now include several working examples of sustainable agriculture that are well on their way to self sufficiency. This work has the potential for creation of a replicable model.

At Kizhenga Farms

- A high school agricultural program trains students in agricultural and environmental practices and provides farmer workshops and train-the-trainer seminars
- Through training from the Siberian Agricultural Institute, in conjunction with ESD's efforts, farmers have adopted a system for organic fertilizer/biological crop rotation for grain production. The system has increased grain production threefold on one farm. Farmers in 13 raions in the Baikal region have adopted the practice
- ESD has helped to create a model dairy and a model vegetable farm to demonstrate sustainable agriculture
- Milk-processing equipment and a meat smoker have been purchased for the use of a cooperative that is being formed. The equipment will enable farmers to sell their products at higher prices and to produce cheese and meat products for family use

In the Okinsky Raion

- ESD purchased 33 top quality male and female Altaian yaks, which are being used to strengthen the gene pool of the Sorok Collective Farms' population of 400 yaks. The

- Republic of Buryatia's Committee on Agriculture has designated the herd for special recognition throughout Russia as the only specialty yak herd of its kind and value
- ESD has introduced 63 Tofilarian Reindeer into the former reindeer habitat of the Okinsky Raion's indigenous Soyot people. The herd now numbers approximately 100 animals, and females will deliver more calves in the spring of 1997. The sale of reindeer antlers for oriental medicine markets is expected to generate approximately \$80 to \$200 per kilogram.

In the Olkhon Raion

- ESD has created two sustainable agricultural centers, one on Olkhon Island and one on mainland Olkhon Raion, to help farmers develop sustainable agricultural practices.
- The sustainable agricultural centers have conducted evaluation and research on meat and wool-processing equipment for use by farmers. Equipment will be purchased in 1996 and will allow farmers to enhance the value of their raw wool and produce meat products for sale and home use.

ESD has also achieved success in promoting *the creation of protected lands and valuable ecological and cultural areas*. This work has used local interest and support to empower people to legally protect areas of significance to the Lake Baikal watershed.

- Results include the legal designation of Arakhley Lakes as a refuge. This project was a direct result of a public meeting in which local residents expressed the need for the protection of the ten lakes. Chita Oblast has adopted regulations to guide management and ensure protection. A refuge director and rangers have been hired to staff the refuge and promote management activities. NGOs and educational institutions are involved in environmental education and construction in the refuge.
- In the Okinsky Raion, approval of the Okinsky Declaration by an overwhelming majority of voters has set course for the protection of the Okinsky National Anthropological Reserve that will preserve critical habitat for endangered species and protect cultural sites of the Buryat and Soyot peoples. To date, most of the documents required for federal recognition of this reserve have been completed. Such recognition will protect an area the size of Vermont and which is now threatened from destructive gold mining and loss of culturally significant sites. ESD's concern has been to ensure that mining decisions are taken in the context of appropriate environmental priorities and regulations.

These activities represent a sampling of some of ESD's accomplishments that are resulting, or have the potential to result, in long-term structural change, the strengthening of institutional capacity, and a positive impact on local peoples in regard to economic and ecological sustainability in their everyday lives. These results were made possible because of the professional and dedicated leadership by both Russian and American staff working on these activities. They have been instrumental in the creation of a participatory process that includes citizen advisory committees composed of the stakeholders with a vested interest in the outcome of the project and its activities. ESD's leadership has been able to build support at all levels, from local citizens to officials in raions, oblasts, and the federal government. The prospects for

the sustainability of these activities have been enhanced greatly by this strong leadership and positive involvement from those people who sustainable development most affects. Further details on specific accomplishments and site-specific recommendations can be found in Appendix D.

These accomplishments are noteworthy and should be recognized appropriately. In contrast to these successes, the evaluation team has two major concerns about the definition of goals and models. First, the cooperative agreement indicates that ESD would develop a work plan, within 60 days of the agreement's signing, that includes "specific objectives for each program component and a strategy for measuring the impact of program activities towards meeting those objectives." ESD did submit a work plan, but neither the team nor USAID/Russia believes it provides a clear sense of intended end results, impacts, or consequences.¹ An appropriate specification of objectives would delineate what would be better or different as a result of successful implementation of the many activities associated with ESD's efforts. At the end of the cooperative agreement, what must have occurred before the project can be declared a success? Answering this question requires a statement of intended or desired outcomes, not a listing of activities to be completed or outputs to be produced. If intermediate objectives are identified, they should be linked to the project's ultimate goal, which is the promotion of sustainable development.

Once intended outcomes are identified, the next step is to provide measurable indicators that can be used to indicate the existence of the intended end results. Illustrative goals include a 5-percent increase in the number of tourists that visit the region annually or two agricultural businesses that are self-sustaining by 1998 (or earlier) as a result of ESD's capacity-building initiatives. Such measures require an understanding of the situation before ESD's interventions, without such an understanding (and corresponding baseline data and related Russian studies), attribution of responsibility will be problematic and evaluation of success impossible. This emphasis on appropriate criteria for evaluation is neither optional nor arbitrary. Section 621A of the U.S. Foreign Assistance Act requires USAID to establish a management system that includes "the development of quantitative indicators or progress toward objectives" as well as "adoption of methods for comparing actual results of programs and projects with those anticipated when they were undertaken."

For these reasons **USAID/Russia should require ESD to provide a statement of intended end results for each set of related activities (such as those associated with ecotourism or for those related to each of the project sites) as well as a strategy for measuring impacts. For each end result, one or more measures of success should also be provided (ideally in the context of the situation before and after ESD's interventions).** If the end

¹ In contrast, ESD believes that it "has complied fully with USAID's reporting requirements." ESD also notes that it prepared (and presented to USAID/Russia) a detailed mid-program report in January 1996 that lists all the objectives in the cooperative agreement and that reports on the status of achievement of each.

results are not achievable during the period in which the cooperative agreement is operative, then ESD should indicate their anticipated dates of achievement and discuss what will be required to ensure success after April 1998

Second, as noted earlier, the cooperative agreement indicates that a major goal is the implementation of at least five models or approaches to sustainable development (e.g., a model for ecotourism or sustainable forestry). The *Comprehensive Program* could also be a useful model for other regions. Given USAID/Russia's forthcoming Replication of Lessons Learned (ROLL) Project, specification of ESD's models is highly desirable. One of ESD's objectives is to demonstrate the applicability of its models to other parts of Russia. Without a clear statement of the models' components, they cannot be transferred elsewhere (unless ESD's staff takes the initiative to do so). A description of a model should include a statement of a desired end result (such as a viable ecotourism industry) and the actions, activities, or interventions required to achieve that result. Given this information, a competent professional elsewhere in Russia should be able to apply the model or approach successfully. Lessons learned in applying models are also relevant. Initial assumptions about the relation between interventions and outcomes may be flawed (and implementors may be doing the wrong thing well) or successful implementation may be impractical because of constraints over which USAID or its grantees, cooperators, or contractors have no control.

The team's recommendation here is straightforward. **ESD should provide USAID with a clear statement or specification of the models identified in the cooperative agreement.** In addition to addressing the items noted above, ESD should ensure that its response is in a substantive form that best suits USAID's needs associated with the ROLL Project, which emphasizes practical ways to achieve sustainable development. To the extent that ESD has encountered success because of its models and approaches, USAID should be encouraged to replicate them. Replication requires comprehension and understanding, and ESD's definition and clarification of its models can contribute a "primer" to be used by others.

III Strengthening Capacity

A Local Governments

ESD's demonstration activities have been well accepted and useful to local governments. Raion officials have developed support for the activities over the past two years because they have seen on-the-ground results. As an illustration, the director of the Baikal Regional Department in Chita Oblast stated that the advantage of having the regional department is that it now has the financial, technical, and management tools to manage natural resources on a regional level and the means to facilitate interagency cooperation--something that was previously impossible. Baer Gomboev of the State Committee for Ecology in Ulan Ude stated that since the development of the *Comprehensive Program*, he has found working with the Buryat Regional Department of Lake Baikal useful in better understanding the republic's resources. He feels this is the first step to good planning. Another respondent suggested that "the advantage of the *Comprehensive Program* is the innovative approaches and vision of the plan, this is very different

than our past central planning, and offers many interesting ideas for all groups in the Oblast” While not all government agencies support the *Comprehensive Program*, the ESD project seems to have opened a new way of land-use planning to government agencies and has facilitated increased interaction between agencies and departments

ESD has had particular success in introducing land-use planning, based on GIS, to communities ESD leveraged funding from the U S Department of State and USAID's Commodities Import Program so that each regional center could get GIS equipment In Chita this equipment is based at the Chita Technical College In Ulan Ude an NGO has the equipment and contracts from the Buryat Republic and raions for work In Irkutsk the equipment is at the Committee on Ecology, which cooperatively works with ESD to do GIS work for two projects The introduction of GIS technology helps form the “backbone” of the land-use planning process promoted in the *Comprehensive Program* and has given local and regional governments an improved tool for both land-use planning and tax valuation of property

Before ESD's involvement in the region, GIS was a relatively unknown planning tool Much has changed due to ESD's efforts ESD has worked directly with many Russian and American institutions to foster capacity building relative to GIS technology and application in land-use planning and sustainable development In Chita, for example, ESD has helped to coordinate and establish a GIS Center at Chita Technical College In addition, ESD worked with regional governments to obtain a grant for GIS equipment from the U S Department of State With still other money from the Department of State (plus some funds from ESD's cooperative agreement), ESD designed and coordinated U S -based training on GIS in conjunction with Wisconsin's Department of Natural Resources in 1994 As a result of this training, Chita Technical College is now training students for careers in GIS and its applications The GIS Center is creating maps and overlays for ESD and will soon begin GIS-related work for municipalities in Chita

GIS has also been of value in the Buryat Republic and Irkutsk Oblast In the former, ESD's assistance has led to the creation of maps that reflect the distribution of resources for the Kabansk Raion A GIS database of cultural and historic monuments has also been created in Kyakhta In Irkutsk, ESD has worked with local officials to produce thematic GIS maps for Olkhon Raion and Bolshoye Goloustnoye

ESD's primary success has been in developing support and accomplishing programs on the local and raion levels In Chita and the Republic of Buryatia there has also been success in building support on the oblast and republic levels of government.

In contrast to the many successes at the local and raion levels, there have been mixed results in building support in the Irkutsk Regional Administration The Committee of Ecology is actively working with ESD, as is the Institute of Geography Other respondents were critical of ESD because they believe that ESD does not work with the decision makers on the regional or federal level as closely as is desired In ESD's view, however, its staff has made continuing efforts to keep local, oblast, republic, and federal officials informed of their activities, plans, and

recommendations For example, ESD's president and his colleagues have met frequently with Yuri Udodov, who heads the Irkutsk Oblast's Committee on Ecology, and with senior officials in other departments of the oblast and raion governments

Lev Belyeu, Deputy Director of the Siberian Branch of the Russian Academy of Science, Energy Institute, stated that, "the Davis Program [ESD] has not contacted leaders of the oblast or people who make decisions--they just work with private people and NGOs It's unusual for us to have people trying to help the region but not working with leaders--this causes suspicions and problems Heads of enterprises should have been contacted to make the process more efficient and reliable " Belyeu stated his doubts that the institute would accept ESD's energy analysis being done for Olkhon Island Atkins International, the contractor on the Technical Assistance for the Commonwealth of Independent States energy project, has already completed these types of energy calculations for the island Belyeu stated that Atkins International's work would be used because the firm is more qualified and had worked with the proper regional authorities

ESD has stated that it discussed the alternative energy needs of Bolshoye Goloustnoye and Olkhon Island with the Irkutsk Energy Institute, USAID's Energy and Technology Group, and with the alternative energy group at the Russian Ministry for Fuel and Energy During preparation of the *Comprehensive Program* and until recently, the Irkutsk Energy Institute opposed the use of renewable energy, stating that such processes were unsuitable for the region More recently, however, the Institute has altered its views and is now recommending increased reliance on renewable energy

ESD's energy specialist worked extensively with the Energy Institute in placing wind and solar measurement devices and evaluating wind and solar data at Bolshoye Goloustnoye and Olkhon Island in 1994 and 1995 Working with regional, raion, local communities, ESD has installed the first solar powered facilities in the local school at Bolshoye Goloustnoye

In discussions with Piotr Abramyonok, Director of Pribaikalsky National Park, he stated that the park's staff feels excluded from projects on Olkhon Island The Forestry Service has control over the island but no park employees were asked to participate in ESD's efforts He believes ESD needs close ties with the federal Forestry Service Without federal coordination some believe ESD's activities would be canceled It should be noted that ESD has worked successfully with Abramyonok on trails in the national park ESD has also involved staff of the national park in its activities on Olkhon Island As an illustration, ESD and its Russian colleagues are working directly with the National Park Service's director, director of international relations, and with the park service's wildlife staff, and will continue to do so ESD also supported and participated in discussions on the reintroduction of wildlife (e g , elk, deer, and camel) on Olkhon Island with the director of the National Park Service

Valery Soloviev, Head of National Parks, Department of the Federal Forestry Service, indicated that ESD's staff had met with he and his colleagues early in the project but had not been informed recently of the project's progress Soloviev was particularly interested in the

designation of the Okinsky territory as a protected area, to his knowledge an entire territory had never been given protected status. Soloviev suggested that further coordination between ESD and his office in Moscow would help avoid problems with protected land designations.

Valentin Brovchak, of the Ministry of Environment in Moscow and Executive Secretary of the Governmental Commission on Lake Baikal, also indicated his belief that ESD had not worked closely with federal authorities. His concern focuses on ESD's alleged lack of communication with the commission and ESD's efforts to establish national parks that are not on the national government's official list of prospective parks. Although these people expressed concerns about lack of coordination with upper levels of government, they all stated that is not too late for such coordination and communication to begin. In the evaluation team's second meeting with Brovchak, he observed that a framework for better communication and coordination had been established after the team's discussion of ESD's progress in the region.

ESD's work has focused primarily on the raion level because it is doing local activities. This approach is consistent with "grass roots" democracy building and empowers local leaders and citizens to control their own land use and economic future. To be successful in Russia, however, there is a need to work effectively with federal and regional governments to yield long-term and sustainable results. **The team thus recommends that in the next two years of work on ESD's project that its American and Russian project staff focus additional attention on informing and coordinating with oblast and federal officials on development of the project components.** Working from the bottom up and top down simultaneously is especially important when considering the sustainability of projects. Many of ESD's activities are in need of long-term financial support from the Russian government, and this is unlikely to be provided unless those at the top who make financial allocations have bought into the project and its concept.

B Nongovernmental Organizations

Strengthening the capacity of NGOs is not a major part of ESD's Lake Baikal project and was never envisioned as a project component, at least in terms of what is included in the cooperative agreement. Despite this situation ESD has had some success in both the utilization and strengthening of NGOs in the Lake Baikal region. NGOs in the region are relatively new, with most having been created in the last two years. Many of those that do exist have few members, need training in grantsmanship and advocacy, and are in desperate need of money.

The Russian site director at Arakhley Lakes has been successful in using and uniting NGOs. They have helped to build trails and do clean-ups and have held environmental training workshops for teachers in the new refuge. The Baikal Center for Biodiversity, formed as a direct result of the *Comprehensive Program*, is supporting the concept in the Chita region. The Buryat Association, a cultural NGO, has also been working actively with the Baikal Regional Department in Chita. NGOs in the Chita region see their role in the *Comprehensive Program* as one of support, informing people through public participation and working on specific projects, such as clean-ups, in the project areas. These NGOs are especially interested in environmental education and student involvement. At Arakhley Lakes the environmental education trail, built

by students, is expected to be used by approximately 500 students per year from the area schools. Teachers also expect to use the refuge as a living laboratory for students studying biology, and ESD's refuge staff has donated materials and time to local school programs.

In Ulan Ude, the evaluation team met with representatives from six NGOs. Several educational NGOs have been working on clean-ups and student trips to ESD's project sites. The Buryat Regional Department of Lake Baikal, which does the local coordination and GIS work for ESD, has chosen to be an NGO. It now does GIS contract work for the federal and raion administrations. The Ecotourism Club has worked closely with ESD's ecotourism director and has assisted in communication with the raion's administration. Representatives of NGOs said they had formed because of the *Comprehensive Program*. They indicated the desire to get the public involved in the ideas associated with the plan because they think it is good for their community. An "NGO Coordinating Committee's" purpose is to unite activities of NGOs. The coordinating committee formed in response to the *Comprehensive Program* and the need to coordinate mass media communications among groups and areas. As in Chita, NGOs in Ulan Ude view their role as being related to public participation and specific actions such as student clean-ups.

In Irkutsk Oblast the evaluation team met with representatives of eight NGOs. Two of these had little knowledge of the *Comprehensive Program*, but the other six had either participated in the public hearings or had been involved in actions such as clean-ups in project areas. Clean-up activities on Olkhon Island are planned for summer 1996 by students from one of the NGOs. The Citizens' Information Initiative, a local NGO, coordinates ESD's activities in the Irkutsk Oblast. As in the other regions of Lake Baikal, NGOs view their role as one of public participation and information exchange about the *Comprehensive Program* and project components.

NGOs in the Lake Baikal area are young, and in most instances, lack the skills to be effective. To develop effective NGOs in the region there is a need for training in grantsmanship, financial administration, public participation and citizen advocacy. Some such training programs have taken place in Irkutsk but not in other regions of Lake Baikal. If USAID or other donors focusing on NGOs are presenting NGO training, there should be special efforts made to include participants from the Chita Oblast and Buryat Republic in order to build an effective NGO community throughout the region. There is need for e-mail communication and other cross-regional interaction among NGOs. In Irkutsk, there was also a suggestion to link with the few Mongolian NGOs that exist in order to have NGO linkages throughout the Lake Baikal region. ESD's activities in the Baikal region have helped to increase the participation of NGOs in land-use planning and natural resources issues but much is still needed. This is an area where USAID's experience and ongoing activities with NGOs can be successfully applied to help support sustainable development in the region.

IV Promoting Market-based Incentives for Natural Resources Management

One of the difficulties in promoting market-based incentives is that a significant market-based economy does not operate in the Lake Baikal region. The market is still primarily controlled by state-run enterprises and institutions, which exert control over natural resource activities and policies as well as much of the economic market. Other barriers include lack of foreign investment and contact in the region, lack of investment, high license fees, taxes imposed on businesses, and the lack of significant efforts to develop new businesses in the region.

Given this situation, the application or adoption of market-based incentives is problematic. Perhaps for this reason, ESD's cooperative agreement does not indicate that the organization will become involved with efforts to introduce such incentives. Despite this situation, ESD's activities in regard to land valuation and property taxes are examples of market-based incentive activities. Technical assistance has been given on the subject of property taxes. Regional government officials were receptive to this information, but the lack of a real land market and the direction and control from Moscow make it difficult for ESD's activities to affect market-based incentives. In the Kabansk Raion of the Buryat Republic, ESD developed a GIS center to assist in developing information on a land valuation for the raion. Using GIS maps with several layers of land use and resource information such as soils, vegetation type, and other factors, land-valuation techniques are developed to help the raion price land for tax purposes. Russian policies on land ownership currently allow transfer of land only to relatives and make it difficult to sell land on the open market. The Kabansk Raion is undertaking the land-valuation project for future development of a working land market when it is legally possible. Other raions in the region have expressed interest in this activity, but ESD's current funding does not allow expansion to other areas.

ESD has increased its capacity to address market-based incentive issues through the hiring of an economic development specialist. She will assist emerging businesses with business planning and market development. Her work involves facilitating the creation of joint ventures and investment into the Lake Baikal region, and she will help to expand assistance to business development efforts in the region.

V ESD's and USAID's Technical and Financial Management

A ESD's Technical and Financial Management Toward Meeting Objectives

The *Comprehensive Program* and associated demonstration projects are managed cooperatively by ESD's management team and by Russian site directors in the watershed. The Baikal Regional Departments in Chita, Ulan Ude, and Irkutsk coordinate land-use activities and mapping for the demonstration efforts.

The projects' consultants are given scopes of work that indicate the terms of their consulting agreements. On the one hand, Russians are required to complete an "Independent Russian Contractor Agreement," which provides for withholding of appropriate taxes. In

addition, salaried site directors have written job descriptions, although comparable descriptions do not seem to be given to those working with the site directors. Subordinates are thus not necessarily aware of others' responsibilities. ESD should distribute job descriptions of each Russian field staff to others working on the same activities to encourage a full understanding of everyone's responsibilities and to build cohesion among the entire project team. Russian project directors should have information relevant to the administration of their activities. Such information might usefully include a budget and a calendar plan. ESD is in the process of implementing these administrative changes for each project site.

On the other hand, expatriate consultants are also given consulting agreements, but these vary considerably in detail and content. As an illustration, the contract for one consultant lists such tasks as "assist and advise the project manager" and "evaluate local facilities" without specifying the intended results of these activities, desired outcomes, or required work products.

The team suggests that **ESD should revise existing agreements and include in new agreements clear statements of purposes, tasks, and required work products**. ESD should similarly ensure that consultants' performance matches the expectations outlined in their (revised) agreements. ESD has recently initiated efforts to match performance and expectations before consultants are fully compensated. This approach should become a routine part of ESD's operations.

Russian site directors participate in calendar planning each field season with ESD management. This process consists of cooperative decision making on each objective to be completed and tasks required to complete that objective. These tasks are prioritized and budgets allocated to complete the program plan after discussions between ESD's field representative and Russian counterparts. For activities with citizen advisory committees, the program plan and budget for the activity (or series of activities) are also reviewed and refined with the committees as well as the local site directors. Each site plan has subactivity implementation plans for achieving objectives, and these too are reviewed jointly. Each plan normally has eight components:

- 1 Objective subactivity title
- 2 Goal of the objective subactivity
- 3 Strategy or methodology for subactivity
- 4 Subactivity participants and leadership
- 5 Subactivity implementation calendar
- 6 Subactivity budget and expense overview
- 7 Means for evaluating achievement
- 8 Demonstration of subactivity's sustainability and Russian financial support post-project

This planning process requires considerable time to prepare, and the Russian counterparts were initially skeptical of its value. They now have accepted the process and have adopted it for all their project work. The project plan and its calendar are used to monitor the completion of

all project objectives and are adjusted as needed to on-the-ground conditions that affect project completion. ESD staff are in the Baikal region about every three months for two to three months at a time to work with Russian site directors on planning, completion, and monitoring of project objectives. These trips are typically based on the need to prepare for the summer field season and the actual work season. Other trips are used to address specific issues, as noted below.

USAID/Russia initiated a financial review of ESD's field activities in early 1996. The result, a "Limited Financial Review Report," found some discrepancies in ESD's reporting procedures, record requirements for nonexpendable property, payroll accounting, lack of codification of travel policies or procurement procedures, payment/receipt processing, and budget implementation documents.

As a result of the review, USAID asked ESD to address the problems and suggested ten recommendations for improvement. ESD responded promptly and appropriately. ESD developed a standard for financial protocols. Upon completion of the protocols, ESD's financial manager recently traveled to the Lake Baikal region to provide training in their use to the project's local counterparts. Such attention to financial matters should eliminate past problems, but **ESD should continue to monitor closely financial reports from its Russian counterparts to ensure compliance with its protocols.**

ESD's field offices in Chita, Ulan Ude, and Irkutsk have good communications and coordination with activities in their region. In contrast, interregional communications should be improved. Many of the site directors do not know what is being done or the status of similar activities in regions other than their own. One associate site manager stated that he did not know his superior's roles and responsibilities or what a similar Sustainable Agriculture Center in the Olkhon Raion on the mainland was working on or had completed.

To the extent that site directors are working on common issues, such as ecotourism or protected areas, this situation suggests that lessons learned are not well communicated among the directors. Accordingly, **the team recommends that ESD develop a strategy for exchanging information about the purposes of its activities, successes and failures, and lessons learned for activities throughout the Baikal region.** This is difficult due to the distances between field offices, but each has e-mail and could submit quarterly reports on the status of their activities. ESD may also wish to consider periodic meetings of site directors and field staff to discuss common problems and lessons learned. Such communication is essential for the Baikal region so ESD's Russian counterparts can share experiences that would be useful to others. Successful activities can be used as models throughout the watershed.

At least one other managerial issue merits attention. The cooperative agreement requires compliance with USAID's environmental procedures, commonly known as Reg 16 (i.e., those in 22 *Code of Federal Regulations* 216). With the exception of certain projects, such as those related to research and training, Reg 16 requires USAID and, by extension, its project implementors to ensure that the reasonably foreseeable environmental impacts of their activities are assessed in advance of implementation. Compliance with the procedures is obligatory, they

reflect USAID's response to the National Environmental Policy Act and the agency's efforts to assure host countries that damage to the environment because of agency-supported activities is either avoided or mitigated

The budget that ESD submitted with its initial work plan included nearly \$40,000 for environmental assessments (i.e., \$15,000 for Olkhon Island, \$14,375 for Arakhley Lakes, and \$10,000 for Bolshoye Goloustnoye), thus reflecting an intention to conduct such assessments. Although activities are well underway at the three sites, no assessments of environmental impacts has been completed. When ESD's staff was asked about the cooperative agreement's requirement involving Reg 16, the staff indicated that it had not seen and was not familiar with the regulation. According to ESD, USAID/Russia's contracting officer subsequently indicated, albeit incorrectly, that the regulation is no longer applicable. To clarify this situation and to determine what ESD's obligations may be, it should seek guidance from USAID/Russia's environmental officer and/or ESD's project officer in the mission. USAID/Russia has advised the evaluation team that it has asked USAID's regional legal advisor to provide an assessment of this issue.

In sum, ESD's management structure and protocols have been evolving since the organization's creation and the beginning of the cooperative agreement. There have been problems and "growing pains," but ESD has shown diligence in correcting problems and continues to do so. Much of the first half of the project was devoted to establishing relations with Russian counterparts and training them. This work continues, and site managers have recognized the importance of management protocols. Equally important, the team found ESD's management to be well informed of activities occurring in the field and cooperatively directing completion of the activities through a process of joint management and decision making with their Russian counterparts. ESD should strive to improve communications and information exchange among its regional offices and among those working on similar issues, wherever they are located. Establishment of support and information exchanges will help to share successes, build regional models and, ultimately, enhance the activities' potential sustainability in the Baikal region.

B USAID's Management of the Project

Several factors appear to influence USAID's management perspective on ESD's efforts in the Lake Baikal region. First, these efforts predate USAID's assistance to Russia, a country in which the agency had no experience prior to the early 1990s. Second, the impetus for USAID's support for the effort was external to USAID/Russia and provided at a time when many activities were initiated without the careful scrutiny that some of them may have deserved or required. Third, changes within USAID and the funding available to it affect the agency's ability to support further work beyond 1998. All these factors may have contributed to some problems in USAID's approach to managing the cooperative agreement.

One problem concerns the highly ambitious and expansive scope of work that ESD has undertaken in the Baikal region relative to the resources devoted to the project. In the view of several respondents, USAID believes that the project was imposed on it. Such a comment

suggests that USAID may not have had an appropriate or thorough opportunity to provide a careful review of ESD's proposal in terms of its feasibility and practicality. Had a more complete review of the proposal been conducted, it would have been discovered that the resources available were not likely to meet the need. Some of ESD's staff members indicated their understanding that the cooperative agreement would be funded at a higher level than is now the case. Given the ambitious nature of its effort (as well as the need and opportunities that exist in the region), ESD might well make a case for additional funding. Political realities within USAID, according to those who work within the mission's Office of Environment and Health, indicate that such funding will not be available.

Similarly, as noted earlier, the cooperative agreement requires ESD to develop and implement an evaluation strategy to measure the project's impacts. This was not done, thus making the present evaluation process difficult in that sufficient baseline data or clearly defined indicators are not available. The cooperative agreement represents ESD's first association with USAID. As a first-time recipient of the agency's support, ESD could have benefitted from USAID's direction and experience in project implementation. Such assistance might have avoided some of the issues and concerns that are now being addressed within the project between ESD and USAID.

The project sites are distant from Moscow, but familiarity with them should be encouraged in order to promote an improved understanding within USAID's staff of the problems associated with implementation as well as appreciation of the successes that have been achieved. It is the team's understanding that past visits have focused on the Irkutsk Oblast and the Buryat Republic. It is in the Chita Oblast, however, where ESD is having some of its greatest successes. In short, the team encourages USAID staff to visit as many project sites as is feasible.

At this point in the project, both USAID and ESD are offered an excellent opportunity to work collaboratively through closer cooperation and communications. In May 1996, for example, the president of ESD and two of his vice presidents met with the staff of USAID/Russia's Office of Environment and Health in an attempt to better understand USAID's concerns and directions for the future. ESD's quarterly reports provide an opportunity to improve communications. ESD regularly submits such reports but is uncertain how the reports are received within USAID/Russia. In ESD's view, feedback and reaction to the reports are infrequent. USAID has addressed contractors' quarterly reports with a General Notice of November 4, 1994. Although this notice applies to contracts (as opposed to cooperative agreements), the team suggests that USAID/Russia consider a slightly modified application of the guidelines in the General Notice. Upon receipt of a quarterly report, the mission's project officer would assess ESD's "performance in terms of quality, timeliness, and cost effectiveness." In addition, the project officer would identify any actions needed to facilitate or improve performance. This information could be included in a single page of comments that would be provided to ESD. Such a system would alert ESD to the mission's concerns and, in turn, allow ESD to prepare quarterly reports that anticipate and respond to these concerns.

The team is not suggesting that the cooperative agreement be treated as anything other than a cooperative agreement. Such an agreement intentionally provides the recipient with considerable flexibility in implementation. How much flexibility is often an issue with cooperative agreements. In the present instance, some of ESD's staff believe that USAID is too intrusive. As one person remarked, ESD feels that it is involved in a "constant audit process." The evaluation team does not make a judgment about the merits of this claim, but the statement is indicative of the need for improved understanding of roles and responsibilities. The cooperative agreement provides for USAID's "substantial involvement" in the project, but both ESD and USAID/Russia would benefit from mutual agreement about the level, frequency, and purposes of such involvement.

The team senses that this agreement does not now exist. As a result, some opportunities for shared successes may be missed. For example, ESD's president is highly entrepreneurial and has had considerable success in generating support for this and other projects in Russia. Interviews with representatives of several private foundations found considerable respect and admiration for the accomplishments that have led to this success. USAID may wish to encourage such entrepreneurial skills and seek to play a facilitative role with other bilateral donors that have an interest in the Baikal watershed. At the same time, however, ESD should recognize and appreciate USAID/Russia's priorities and the need to make difficult choices in the face of declining budgets.

VI How ESD's Project Fits into the Overall USAID Assistance Strategy and Coordination with U S and Other Donors

A USAID's Assistance Strategy

The *Comprehensive Program* serves as an "umbrella" concept designed to guide the process of developing a model of sustainable development in the Lake Baikal region. The *Program's* authors concluded that, to be most effective, it "must be continually refined to more accurately reflect the capabilities and social needs of the people." This process of refinement is now underway and is the special focus of the activities in the Okinsky and Kabansk Raions.

In this process of refinement to address and reflect more accurately the capabilities and social needs of people, sectors other than the environment could be more involved in developing a more holistic model for achieving ecologically sustainable development. As USAID emphasizes in its *Strategies for Sustainable Development* (1994), such development involves many different sectors. The strategy indicates that integrated approaches are needed and that key sectors such as education, energy, and health are essential to achieving sustainable development. "We intend to minimize the so-called 'stovepipe' projects and programs that operate without regard for other development efforts of larger objectives."

Despite this emphasis on a joint approach to sustainable development, the evaluation team believes that USAID has viewed the current effort almost solely as an environmental project, and other sectors have not been constructively involved. USAID points out, however, that some

efforts of other projects (e.g., ISAR, NET training programs, and the Commodity Import Program) have been focused on the Baikal region. For example, representatives of the region participated in all USAID-funded NET training courses during 1994-1996, and USAID/Russia provided \$30,000 in grants to 11 environmental NGOs in the Baikal region through ISAR.

The evaluation team encourages other USAID sectors such as health, energy, social services, economy, and business to become involved with ESD's efforts in order to ensure coordinated action in economic development, human health, citizen rights, and social security issues. This could enhance the chances for success of individual project components and produce a more holistic model for sustainable development in Lake Baikal and other regions. Moreover, with dwindling resources and an increased emphasis on measurement of accomplishments, integration of sectoral approaches should represent an attractive option for USAID/Russia, as *Strategies* suggests is the case. Integration need not require an additional commitment of resources, but it would require enhanced coordination and examination of ways in which USAID/Russia's many successful efforts outside of the environmental sector can contribute to the successes desired in the Lake Baikal region.

Involvement of additional sectors in USAID/Russia's portfolio would also support Secretary of State Warren Christopher's recent directive emphasizing the need to heighten attention to environmental issues as an element of U.S. foreign policy. USAID's administrator responded enthusiastically to the secretary's initiative. The team believes that ESD's *Comprehensive Program* and its related components in the Lake Baikal region offer a unique opportunity for USAID to engage in a unified and cooperative approach to sustainable development.

Examples of USAID activities that might contribute support, expertise, and lessons learned could include:

- Activities directed towards economic transition such as policies, legislation, and reform of the tax system,
- Development of private enterprise such as farm reorganizations, developing new and small businesses, and the financing of microbusinesses,
- Economically and environmentally sound energy systems,
- Developing effective local government and civic participation,
- Strategic technical assistance to improve infrastructure and services,
- Improved effectiveness of social benefits and services, and
- Increased capacity to deal with environmental pollution.

In addition to these opportunities there have been lessons learned through USAID's support to the Board of Science and Technology for International Development. Appropriate technologies related to biogas production, sanitation, and fuel-efficient wood stoves might be demonstrated and applied in the Lake Baikal region. USAID should take a proactive role in bringing its experience and expertise to help build on the work ESD has done to ensure that the model for sustainable development is successful.

The scope of work for the evaluation asked the team to explore ways in which ESD's activities might be coordinated with other activities of the U S government. One such opportunity was examined, namely the involvement of the U S Peace Corps. Its possible involvement in Baikal-related activities was discussed with the agency's officials in Moscow and Washington, D C. There is potential interest within the Peace Corps, particularly because of a new, joint initiative with which the Corps is involved. The other partners include USAID and the Department of the Interior. The "Partnership for Biodiversity" is a three-year pilot project designed to improve management and protection of biodiversity at internationally significant sites. Under the terms of the partnership, the Department of the Interior would provide short-term technical assistance while the Peace Corps would provide long-term assistance. The partnership is not now operating in the Baikal area, but the Peace Corps is, as just noted, potentially amenable to working there.

The Lake Baikal watershed contains considerable biodiversity, with more than 1,500 endemic species of plants and animals. The watershed thus offers an especially suitable site for a pilot project. The U S Park Service, a unit of the Department of Interior, could provide assistance in park planning, management, and protection. Another constituent unit, the U S Geological Survey, could provide assistance in satellite imagery and techniques related to the mapping of land uses.

However desirable collaboration with the partnership might be, it would require financial resources that are probably not now available within USAID. Should this situation change, USAID may wish to consider the partnership as a vehicle for further work in the region.

B Coordination with Activities of Other Donors

ESD has several contacts with officials of the World Bank who are responsible for the Global Environment Facility's (GEF) project planning for the Lake Baikal watershed. ESD has also sought to coordinate its project with a German-supported "landscape zoning" project in Irkutsk. ESD has indicated that it looks forward to working with USAID's leadership in encouraging and facilitating cooperation among donors' efforts to build on investments that the U S Government has already made in the region.

One of USAID's objectives is to work with other donor agencies, including the World Bank, other bilateral donors, the European Union, and others, to ensure that programs not completed with USAID funding receive support after USAID's withdrawal (USAID/Russia 1996). Unfortunately, there does not now appear to be an effective mechanism for coordination among donors in regard to activities around Lake Baikal. One is needed. One respondent described the occasional meetings of the Environmental Officers Group as superficial and ineffective. He also indicated that he could not represent USAID at these meetings. He suggested that UNESCO might be an appropriate organization to organize a mechanism to coordinate donors. This possibility should be explored, perhaps in association with UNESCO's Man and Biosphere activities in Russia and the Lake Baikal Biosphere Reserve and potential world heritage site. **The team recommends that USAID/Russia's Office of Environment and**

Health assist in organizing and supporting a mechanism for donor coordination and support to the program in Lake Baikal The U S embassy's involvement with the G-7 coordinating committee may provide an appropriate forum, and USAID should consider the development of a presentation on Lake Baikal to this committee

In contrast to a potential coordinating role for USAID, it is beyond ESD's responsibility and capacity to ensure that other donors collaborate in activities that ESD has begun. ESD staff have had several meetings with other donor representatives to encourage cooperative efforts. This effort has produced offers of cooperation, but it cannot ensure a collaborative approach to sustainable development. In addition, however, there do appear to be other opportunities for collaboration to explore among current USAID projects, including the cooperative agreements that USAID has with ISAR and the Harvard Institute for International Development. Both are engaged in activities of direct relevance to ESD's work, and the team strongly encourages USAID to establish a collaborative process among those groups that are implementing related activities.

C Coordination of Lake Baikal Activities within the Russian Federation

The Governmental Commission for Lake Baikal was created under the ordinance of President Boris Yeltsin on December 18, 1992. Its function is to "Coordinate the activities of central agencies of the federal executive authorities, state administration agencies of all relevant regions, as well as international public organizations and private persons engaged in preparation and implementation of programs that will ensure the ecologically stable development, protection, and rational utilization of the natural resources of the Lake Baikal Basin." In line with this statement of purpose, the expectation upon its creation was that the commission would be the policy-setting and coordinating authority governing all land use within the Baikal Region. This is an ambitious expectation, and one that not yet come to full fruition.

The commission, which is chaired by a representative of the Ministry of Environmental Protection and Natural Resources, recently established a working group to give policy guidance to regional teams from the GEF's Russian Federation Biodiversity Conservation Project (World Bank 1996). One part of this GEF activity will focus on biodiversity in the Lake Baikal watershed. The teams are to be established at each of the regional administrations (Irkutsk, Chita, and Ulan Ude). A logical next step might be the creation of a regional executive committee with representatives from the three administrative centers in the Baikal region. To the extent that USAID and ESD consider such a step to be desirable, they may wish to encourage the formation of such a group and assist in supporting a secretariat to implement a program guided by the executive committee. This could be a way to bring various groups together to advance ESD's efforts. ESD's management has begun to formulate recommendations along these lines for dissemination to its Russian coordinators and activity managers in the region. In the meantime, there is likely to be at least some continuity between ESD's project and that of the GEF. ESD's site director for the Chita Oblast will be the GEF's regional coordinator for that oblast.

D Coordination of Activities between ESD and the GEF's Biodiversity Project

The GEF will soon start the implementation of a series of wide-ranging activities related to the protection of environmental quality, including biodiversity, in the Baikal area. Representatives from ESD have met with those at the World Bank who have primary responsibility for the GEF project, and there appears to be agreement that the Bank can build on efforts already underway in the region because of ESD's efforts. Close and further coordination between ESD's activities and most of the GEF component activities should be encouraged, but it is unlikely to happen unless there is a deliberate, concerted effort to achieve it. The team has two recommendations in this regard. First, the team recommends that a workshop should be held between ESD's senior staff and the GEF's Baikal Supervisory Committee to determine strategies and plans for cooperation in as many of the GEF's component activities as the participants consider to be feasible. Second, USAID may wish to ask ESD to discuss its pursuit of collaboration with the GEF project (and the resulting successes) in ESD's quarterly reports to USAID.

VII ESD's Focus and Structure on Specific Goals

The evaluation team was asked to determine if, and how, the ESD project should be structured or focused on specific goals, and to determine if additional activities should be undertaken in the future to ensure the project's sustainability. Considering the conditions under which the project was initiated--an economic situation that led to dramatic cuts for conservation activities, loss of jobs, and increased pressure to exploit natural resources-- ESD has made considerable progress. ESD and its Russian partners have used public participation to identify and support activities and institutions with a desire to change conditions and move toward sustainable development. ESD recognizes the need for a revised structure and focus of the *Comprehensive Program* based on the lessons learned from implementation of component activities. The *Comprehensive Program* is intended to be a concept and process rather than a static document. It must be refined to fit the conditions and the needs of people in specific areas, and ESD recognizes this need. Based on this learning process, ESD is now seeking funding to create a "Listen to the Land, Listen to the People" document as a guide to designing comprehensive and sustainable economic development programs in other regions.

USAID/Russia asked the evaluation team to assess the relative value of each of the twelve project sites in terms of their contribution to the project's overall goals and to provide a judgment about whether any of the activities at these sites should be discontinued. This is a judgment that the evaluation team should not make. On the one hand, the evaluation team did not visit all the project sites and is, therefore, not familiar with the strengths or weaknesses of all the relevant activities. Moreover, it is too early to judge the relative sustainability of the efforts underway at each site. As recommended below, the evaluation team believes that ESD should prepare a sustainability plan and exit strategy for each project site. Sites with dim or marginal prospects for sustainability might be candidates for discontinuance.

On the other hand, consideration of which site activities to continue (or discontinue) should be made in the context of related efforts on the part of the Russian Federation, local and regional governments, and of other donors (such as the World Bank) that can benefit from ESD's experiences

USAID believes that ESD accepts the idea that some activities should be discontinued or finished earlier than originally anticipated. If that is the case, then the staffs of ESD and USAID/Russia's Office of Environment and Health should engage in a participatory process (in conjunction with other interested parties) to determine how adjustments should be made. Such a process should await, however, ESD's completion of a statement of intended end results for each activity or set of related activities. This statement can be used to judge the relative merits and importance of the activities.

The team also notes that discontinuance of project activities without the concurrence of local participants could contribute potential disappointment and distrust from Russian partners. Each of the activities has begun the process of sustainable development in the Lake Baikal region and created the potential to provide valuable lessons learned. ESD has made adjustments in and among activities based on its internal midproject evaluation. These adjustments have now been incorporated into work plans, objectives, time frames, and budgets. In Appendix D, the evaluation team has included additional recommended actions to strengthen activities and to increase the likelihood of long-term sustainability for ESD project activities.

In order for USAID to better focus appropriate assistance to help achieve goals, **ESD should provide USAID with an assessment of the critical needs, constraints, and opportunities that must be addressed to ensure each activity's completion and sustainability.** USAID should then determine how other existing programs in other sectors could assist in developing good models. One critical area for attention is the development of small businesses. Another is the dissemination of practical educational materials on fire prevention. USAID may consider a workshop of sector representatives to discuss with ESD, and other USAID environment project contractors, how they might provide information, technical assistance, and lessons learned from existing projects that could strengthen ESD's and other contractor's activities to create useful models for sustainable development. ESD should also present a draft of its "Listen to the Land, Listen to the People" document, making the case for comprehensive land-use planning at this workshop, so that it can get feedback from USAID's sector representatives before finalizing the document for use in other areas.

With the excellent beginning to develop a grass roots program in its project areas, far more should be done to extend the practical lessons learned to other areas in the Lake Baikal region. Simple, inexpensive, but specific information material should be prepared. The material should describe the objectives of sustainable development and practical measures to achieve the goal for distribution throughout the region. Such activities should be supported through USAID/Russia's ROLL Project so that ESD's ability to complete its existing program plan is not compromised.

VIII The Sustainability of ESD's Project

Are ESD's activities truly sustainable and will they continue after the end of the cooperative agreement? A definitive answer to this question is both premature and presumptuous, but it is possible to assess likely sustainability on the basis of accomplishments to date

ESD's project activities are designed to have cost sharing by Russian partners with full local support by April 1998 (or earlier) With the current economic difficulties in the region and the Russian Federation, this strategy may be overly optimistic Nonetheless, indicators of both institutional and financial sustainability are present for many activities

ESD's activities have begun the process of incorporating sustainable development into institutional structures in the Lake Baikal region Governments and NGOs have adopted sustainable development techniques and principles into their land-use planning and natural resource management activities This change in perspective and approach will likely carry on when the project is completed Some examples of institutional sustainability include the following

- The Baikal Regional Department of Chita has been created to coordinate sustainable land-use activities in accordance with the *Comprehensive Program* with the federal Forest Service, raion administration, Chita Technical College, Chita Institute for Natural Resources, Pedagogical Institute, Buryat Association, and other NGOs
- Democratic, interdisciplinary citizen advisory and land-use planning committees have been established in the Okinsky, Olkhon, and Kabansk Raions, and a similar effort is underway in Bolshoye Goloustnoye In addition, the raion governments for Kabansk and Okinsky have established permanent citizen-based committees to address issues related to sustainable development
- The Oblast Committee on Ecology, the Irkutsk Raion, and the Orthodox Diocese of Irkutsk have executed legal arrangements for the permanent protection of the waterfront park and church grounds in Bolshoye Goloustnoye
- A cooperative has been formed at Khizhenga Farms to process milk and meat that will serve approximately 400 farmers

Financial sustainability presents a greater challenge in a time when oblast and raion budgets are shrinking and a viable private sector is still in its infancy ESD is promoting joint ventures and the development of small sustainable businesses in the region, but international and regional investment has been slow in coming ESD plans to lead a trade mission to the Lake Baikal region in 1996, but has postponed the original date to a more opportune time later in the year The trade mission's primary purpose will be to link American investors with potential joint ventures If joint ventures are created, consideration should be given to establishing an sustainable development fund from a small percentage of the profits from these ventures Some companies may support such an activity because of the public relations values

Other activities in ESD's portfolio are beginning to develop long-term sustainability through local support As examples

- Efforts in Kyakhta have resulted in Kyakhta being one of only 23 applicants throughout Russia to receive grant funding for the restoration of small historic and cultural cities in the former Soviet Union. The grants program will provide 328 billion rubles between 1997 and 2000.
- Arakhley Lakes Refuge worked with raion officials to establish a user fee for groups' use of Arakhley Lakes to help support environmental work in the refuge.
- The federal budget will provide 80 million rubles per year to sustain the yak herd in Okinsky Raion. The herders will sell 80 head of nonpedigree yak for meat, and the sale will generate approximately one million rubles. In addition, another 30 pedigree yak will be sold for breeding stock. In addition, when the herd receives pedigree status the farm will receive 460,000 rubles per yak from the federal budget versus the current 206,000 rubles per year. This amount will make the yak herd sustainable in 1996.

As ESD works towards completion of the project's activities **it is essential that each project site develop a sustainability plan and exit strategy. This plan and strategy should realistically evaluate the institutional and financial sustainability of activities at each site and identify needed financial inputs and actions to be taken in the next two years to ensure their sustainability.** With the current economic condition it will be necessary to be realistic in expectations and look to integrate the project's activities into the institutional infrastructure that exists in the region. ESD has already begun to explore exit strategies. In May 1996, at the same time the evaluation team was in the Baikal region, two of ESD's vice presidents were also there. They were soliciting concrete proposals from their Russian counterparts in regard to how the latter would disseminate the lessons learned from the model projects in the context of the *Comprehensive Program*.

In sum, ESD is making progress towards sustainability of the project but much needs to be done. ESD is actively seeking support from local and federal Russian partners and American investors and foundations. The next two years will be critical in developing the sustainability of each project activity and will require a careful examination of each activity as to its financial and institutional needs for sustainability and actions needed to achieve sustainability. If major issues arise in regard to the likely sustainability of particular activities or themes (such as ecotourism), then ESD and USAID should decide whether it makes continued sense to pursue them.

IX Additional Activities Needed

Additional technical assistance and use of "lessons learned" by USAID sectors other than environment have already been discussed.

Another item that the evaluation team was asked to address is the proposed ESD component on investment and business development in 1996. The ESD proposal to expand business activity consistent with the *Comprehensive Program* contains worthy objectives and describes intended outcomes. The proposed activities are logical additions to the program and would certainly contribute to its sustainability.

For example, as noted above, a trade mission to the Lake Baikal region is scheduled for late 1996, and a document describing eight sample opportunities has been prepared. To achieve success in any of these would contribute to the program. One possible venture, for example, might provide a better market for wool being produced by the ESD farm project in the Olkhon Raion. This is the Yana-T Knitwear Production Company in Irkutsk.

The evaluation team suggests that a new edition of the *Comprehensive Program* be published. The new edition could reflect the lessons learned from the *Program's* refinement in the Okinsky, Kabansk, and Olkhon Raions. Republication might be the kind of activity that would be suitable for funding through USAID's ROLL Project.

X Baikal Sustainable Forestry Project

After the evaluation began, USAID/Russia asked the evaluation team to review certain activities of ESD in the Baikal region in regard to its sustainable forestry initiatives. The request suggested that an American partner of a joint venture created with ESD's assistance might be logging, or planning to log, in a watershed protection zone northwest of Ulan Ude. The request further indicated that Russian and American environmental groups are concerned about the firms' allegedly negative reputations.

ESD did not know the source of the criticism and believes there is no basis for it. To ESD's knowledge, the companies considering the joint venture are responsible businesses willing to comply with all environmental laws. Although the evaluation team was not able to visit the site in question, the team has no reason to believe that logging has begun or is likely to begin in the near future in a protected area. One local firm is logging near an area *proposed* for protection, but with the oblast's knowledge and approval. Only selective thinnings are permitted and only outside a ten-mile buffer area surrounding Lake Baikal (Overseas Private Investment Corporation, OPIC, 1995). As one observer noted, "On-the-ground examination of harvest areas revealed remarkable success in removing timber with little if any [environmental] damage" (OPIC 1995).²

In response to an indication of an interest in a joint venture involving an American firm, the Overseas Private Investment Corporation commissioned a limited sustainable forestry assessment of a site in Buryatia (OPIC 1995). This assessment concluded that some selective logging of damaged, dying, or diseased trees may be appropriate, but only after assurances that the watershed would not be damaged. Should the joint venture be consummated and a proposal for logging submitted, the assessment recommended that a detailed environmental evaluation be prepared. If logging were to be permitted, other environmentally related restrictions would be imposed. To date, however, no foreign firms are involved in any logging in the Buryat Republic in any areas already protected or proposed for protection.

² ESD's vice president for program, Zane Smith, was the primary author of the OPIC report. He is currently ESD's director of policy.

To understand this issue, it may help to note that there is currently a controversy between NGOs in Buryatia and the Buryat Ministry of Forestry concerning proper standards for "sanitation cuts" within the lake's influence zone and riparian areas of the republic. The republic's regulations afford considerably more harvesting than would be permitted under regulations of the Russian Federation's Ministry of Forestry. ESD has approached this matter in two ways. First, it has encouraged Buryat officials to tighten these rules in conformity with the *Comprehensive Program*. Second, ESD has contributed to the funding of legal research on the issue of whether Buryatia is obligated to apply the stricter standards under principles of Russian federalism.

The issue of joint ventures and their prospective logging in the watershed prompted the evaluation team to inquire about the state of knowledge regarding sustainable forestry practices and if adequate monitoring programs are in place. Such programs are in place to determine where logging occurs and how forests are changing over time.

Prior to traveling to the region, the team asked the executive secretary of the Governmental Commission on Lake Baikal how it might respond to problems of a joint venture that did not comply with standards for sustainable forestry. The *Comprehensive Program* recommends that the Governmental Commission on Lake Baikal should have a major role in ensuring that development activities respect the *Program's* principles and standards. The chairman indicated that if such a problem were brought to the commission's attention, it would deal with it through the appropriate governmental authorities.

Sustainable development is dependent on viable economic development, so joint ventures are likely to be an important part of the *Comprehensive Program*. Good environmental performance standards, personnel training, transfer and use of the best available technologies, and suitable equipment are necessary for such ventures to succeed. Nonetheless, joint ventures that are mutually profitable to investors and the people of the region are difficult to establish under existing conditions. This could be made more difficult if there are unfounded implications that interested firms may have negative reputations.

It is recommended that ESD's Russian and American project staff develop criteria and protocol procedures for the establishment of joint ventures that would include background and reference checks of the potential investment firms for conformity to required laws and regulations on past cutting ventures, financial standing and adherence to contracts. Joint venture contracts should include sustainable forest-cutting practices required by the joint venture and assurance that cutting would be conducted in accordance with standards established in the *Comprehensive Program* and federal and oblast laws and regulations. Provisions should be made for on-site inspection and monitoring, and the joint venture should be required to pay for site clean-up and restoration.

ESD has noted correctly that the prime responsibility for developing criteria, requiring contract provisions, formal on-site inspections and monitoring, and payments for clean up and restoration rests with the Ministry of Forestry and regional governments. ESD and Russian project personnel are available.

XI Conclusions

In response to the objectives of the midterm evaluation of ESD's project activities in the Lake Baikal region, the evaluation team concludes that the *Comprehensive Program* serves as a valuable unifying concept for promoting the region's sustainable development. Key government agencies and NGOs in Buryatia and the Chita and Irkutsk Oblasts have joined in a movement to sustain the region's unique natural and cultural resources.

The *Comprehensive Program* is a major catalyst for the development of a regional network of protected areas, the primary means to safeguard the region's significant biodiversity. The *Comprehensive Program* also serves as the guiding document for the twelve ESD project components, three of which focus on the refinement of the *Comprehensive Program* "to more accurately reflect the capabilities and social needs of the people" in different environmental and cultural situations.

This program and its component projects fit well into USAID's overall assistance strategy. Indeed, the project contributes significantly to the agency's strategy for sustainable development, which is characterized by "economic and social growth that does not exhaust the resources of the area, that respects and safeguards the economic, cultural and natural environment, that creates many incomes and chains of enterprises, that is nurtured by an enabling policy environment, and that builds indigenous institutions that involve and empower the citizenry."

The need now is to continue to develop this holistic approach by a more collaborative approach of other sectors within USAID to provide technical assistance and lessons learned. This might be done in part through USAID/Russia's forthcoming ROLL Project, the purpose of which is to build on and expand existing environmental activities in an effort to multiply the positive effects that have resulted from the U.S. government's environmental assistance program.

ESD's approach to sustainable development can become one of the best in the world. The need for such programs is urgent throughout the world, and the fact that this one is being implemented with USAID's support in one of the most globally significant environmental areas makes it extremely valuable to the rest of the world.

References

- OPIC 1995 *Lake Baikal Basin, Buryat Republic Sustainable Forestry Assessment* Prepared by ESD for OPIC
- USAID 1994 *Strategies for Sustainable Development* USAID Washington, D C 41 pp
- USAID/Russia 1996 *Results Review and Resource Request* Moscow, Russia 138pp
- World Bank 1996 *Russian Federation Biodiversity Conservation Project* Report of the World Bank, Washington, D C 124 pp

Appendix A Statement of Work

Over the past four decades, environmental conditions in the New Independent States of the former Soviet Union (NIS) have steadily deteriorated. Power-generating facilities and industries with inadequate environmental controls released vast quantities of pollutants into air, water, and soils, impairing human, ecological, and economic health. Energy intensive and economically inefficient programs led to the unsustainable use of important natural resources. Government capacities to implement and enforce environmental laws and regulations were hampered by centralized environmental bureaucracies and a lack of political will to protect the environment.

The people of the NIS lived under a system in which most decisions were made by the central government. Local governments merely implemented central government policies and programs. Citizens were not given power to make decisions about the services that affected their daily living conditions, such as water, sewers, housing, and environment. As power and responsibilities are decentralized, local governments are becoming responsible for the tasks that most directly affect citizens. It is at the local level that the fruits (or failures) of democracy are most visible, and therefore, most critical.

Under these emerging conditions in 1991, the governments and people of the Buryat Republic and the Irkutsk and Chita oblasts turned to their own scientists, the Siberian Branch of the Academy of Sciences, and the Center for Citizen Initiatives (CCI) in the United States for assistance in developing a comprehensive land-use planning program for the Lake Baikal watershed. Lake Baikal and its watershed are among the world's unique natural resources, the lake contains more than 20 percent of the world's fresh water and supports tremendous biodiversity. This effort was supported by various Russian and American donors, including Davis Associates, which later became Ecologically Sustainable Development, Inc. (ESD).

A two-year study was undertaken by ESD and resulted in a framework for a sustainable land use model project for the 30 million hectare Russian Federation portion of the Lake Baikal watershed. The concept of the project and the accompanying map were presented to the international donor community for possible funding.

USAID began supporting this project in September, 1993, through a \$420,036 cooperative agreement with CCI. In May, 1994, a second cooperative agreement for \$3 million was signed with ESD to complete the project by April 1998. The ESD project is entering its second half. The Contracting Officer Technical Representative (COTR) is based at USAID/Russia.

The ESD project aims to show that both the environment and economic development are inextricably linked. As a result of international community's interest in the lake's future, local leaders are now working with regional and the national governments, non-governmental organizations, the private sector and the Baikal Commission to protect the area. The region should be a model of sustainable development based on agriculture, education, forestry, mining, science and tourism, while prohibiting some types of development, such as nuclear energy plants.



and toxic waste producers, from operation in the watershed. The activities being implemented by ESD should serve as the foundation for land use reform throughout the watershed and assist in determining equitable land values and tax rates.

I TITLE

Midterm Evaluation of Ecologically Sustainable Development, Inc

II OBJECTIVE

Provide an objective, formal, external mid-term assessment of the assistance provided under the ESD Cooperative Agreement (No 110-0003-A-00-4018-00) and provide guidance to ESD management and USAID to optimize the second half of the project.

III STATEMENT OF WORK

The objectives of this activity are to (1) assess and document the effectiveness and impact of the ESD project in strengthening the capacity of the local governments and NGO's in Buryatia and the Irkutsk and Chita Oblasts to carry out environmental management that promotes ecologically sustainable development and biodiversity protection in the Lake Baikal region, (2) assess and document the effectiveness and impact of the ESD project in promoting market-based incentives for improved natural resources management, (3) evaluate ESD's technical and financial management relative to meeting program objectives, (4) evaluate how the ESD project fits into the overall USAID assistance strategy and recommend ways to coordinate the project with activities by other U S government and international donors (for example, EU/TACIS and World Bank), (5) determine if, and how, the ESD project should be structured or focused on specific goals, (6) determine the degree of sustainability of the ESD program, and, (7) determine if additional funding in FY 96 and FY 97 is crucial to the program's success and sustainability. (Note: At USAID/Russia's request, the last objective was altered, the evaluation team was asked to "determine if additional activities should be undertaken in the future to ensure the project's sustainability.")

The contractor shall perform the following tasks:

(1) Review background documents from ESD, including project authorizations, proposal, cooperative agreement, quarterly and annual reports, newsletters, outreach materials, and materials developed during the implementation of the agreement, including "A comprehensive program of land use policies for the Russian portion of the Lake Baikal Region" and GIS maps,

(2) Conduct interviews and hold briefings with ESD staff in Elizabethtown, New York, USAID/EN/EEUD staff in Washington, and the World Bank consultants for the Lake Baikal GEF grant to ensure pre-field evaluation exchanges (see attachment A),

(3) Conduct an extensive field program review at 12 project sites located in Buryatia and the Chita and Irkutsk oblasts. The contractor shall meet with Russian counterparts, including government officials, NGO's and community leaders in all three regions and, upon return to Moscow, meet with U S Embassy and USAID Mission officials and Russian counterparts at the central government (see attachment A), and,

(4) Debrief USAID/Moscow staff on the results of the field interviews upon return to Moscow

IV PERSONNEL

The Contractor shall propose a team consisting of three persons. Team members should possess superior written and verbal communication skills, as well as experience with issues related to natural resources management, biodiversity protection and land use planning. Overseas experience, preferably in the NIS, is required. The team leader is required to have experience participating in previous USAID evaluations and project design activities. An interpreter, preferably familiar with environmental management terminology, is required. The team will report to USAID/Moscow, Deputy Director of the Office of Environment and Health, Dr Kevin A. Rushing.

VI DELIVERABLES

Prior to traveling to Russia, the Contractor shall submit a draft work plan, including a list of interview questions, and a draft report outline to USAID/Moscow for concurrence.

The Contractor shall prepare draft summary findings and conclusions for the debriefing at USAID/Moscow.

The contractor shall submit copies of a draft final report to USAID/Moscow, USAID/Global/ENR, and USAID/ENI/EEUD not later than 14 days following the team's return to Moscow and shall make an oral presentation to USAID/Moscow staff. The report should identify

- (a) successful activities or accomplishments stemming from ESD's program to-date and which sub-projects are sustainable and which have the local counterparts' commitment to sustain,
- (b) problem areas and suggested remedial actions,
- (c) recommended activities to continue or expand,
- (d) recommended activities to discontinue or postpone,

- (e) recommended initiatives or complementary assistance to be undertaken to ensure impact of project objectives (if funding becomes available in FY 96 or FY 97), and,
- (f) the extent of in-country and U S coordination of activities, both technical and financial, and proposed mechanisms for streamlining these communications and improving coordination where needed

The Contractor shall submit a final report (not to exceed 25 pages with an Executive Summary of findings and conclusions not to exceed three pages) that responds to comments from USAID and ESD within seven days of receipt of such comments. These comments will be given to the Contractor within 14 days of receipt of the draft final report.

The Contractor shall submit 50 copies (49 bound and one loose leaf) of the final report to USAID/Moscow, USAID/Global/ENR, and USAID/ENI/EEUD for distribution. The Contractor shall also provide the final report on a diskette in Word Perfect 6.1 (WIN) format. Additional materials may be submitted as annexes, such as a bibliography of documents analyzed, lists of agencies and persons interviewed, and a list of sites visited.

VI SCHEDULE

The Contractor shall conduct this activity in the period of March through June, 1996.

Prior to traveling to Russia, the Contractor shall conduct interviews and hold briefings in the United States, schedule appointments in Russia, collect and review documents, and interview staff at ESD, USAID, and other donors. For field work in Russia, the Contractor shall arrive in Moscow to begin work and shall spend about one week collecting background information, spend about two weeks in the Lake Baikal region conducting field reviews and other necessary research, and, return to Moscow for about one week to conduct a trip debriefing, prepare a draft report, and obtain comments from USAID/Moscow. The Contractor shall finalize the report in the United States after receiving comments from USAID and ESD and conduct informational briefings as appropriate.

Attachment A

Ecologically Sustainable Development, Inc

- 1 George Davis, President
- 2 G Gordon Davis, Senior Vice-President
- 3 Donna Beal, Vice-President, Administration
- 4 Jacqueline Torrance, Accounts Manager
- 5 Dan Plumley, Field Manager
- 6 Members of International Board of Advisors
- 7 Others, as recommended by George Davis

USAID/Washington

- 1 Jim Tarrant, ENI/EEUD

USAID and U S Embassy in Moscow

- 1 Terrence Tiffany, OEH Director, USAID/Moscow
- 2 Kevin Rushing, OEH Deputy Director, USAID/Moscow
- 3 Marina Perfilova, Project Officer, USAID/Moscow
- 4 David Miller, U S Embassy, Environment Officer

Other Donors

- 1 Andrew Bond, Biodiversity Specialist, The World Bank
- 2 W Alton Jones Foundation
- 3 MacArthur Foundation

Russian Counterparts (Moscow and Lake Baikal region)

- 1 Peter Bogdanov, Chief of the Department of International Cooperation, Ministry of Environmental Protection and Natural Resources
- 2 Valentin Brovchak, Chairman, Governmental Commission on Lake Baikal
- 3 Maria Safonova, Project Coordinator, Irkutsk
- 4 Sergei Shapkhaev, Project Coordinator, Ulan-Ude
- 5 Nikolay Matoshkin, Olkhon Island, Head of Administration
- 6 Irina Glazyrina, Project Coordinator, Chita
- 7 Deputy Heads of Administration at each region and Buryat Republic responsible for the coordination of ESD project

Appendix B Evaluation Work Plan

Midterm Evaluation of Ecologically Sustainable Development's Activities in the Lake Baikal Watershed

I Evaluation Objectives

The objectives of the midterm evaluation of the activities of Ecologically Sustainable Development (ESD) in the Lake Baikal Watershed are to (1) assess and document the effectiveness and impact of the ESD project in strengthening the capacity of local governments and nongovernmental organizations (NGOs) in Buryatia and the Irkutsk and Chita oblasts to implement environmental management that promotes ecologically sustainable development and biodiversity protection in the Lake Baikal region, (2) assess and document the effectiveness and impact of the ESD project in promoting market-based incentives for natural resources management, (3) evaluate ESD's technical and financial management relative to meeting program objectives, (4) evaluate how the ESD project fits into USAID's overall assistance strategy and recommend ways to coordinate the project with activities by other U S and international donors, (5) determine if, and how, the ESD project should be structured or focused on specific goals, (6) determine the degree of sustainability of the ESD program, and, (7) determine if additional activities should be undertaken in the future to ensure the project's sustainability and, if so, to provide specific recommendations. The questions identified below will help us to assess these seven areas.

II Methodology

A Approach

Our first step will be to acquire and review key background documents on the Lake Baikal project from ESD and USAID. Briefings and interviews will then be held with ESD, USAID and the World Bank representatives in Washington, D C, and ESD staff in Elizabethtown, New York, prior to traveling to Moscow in April. Meetings will be held with U S Embassy and USAID Mission officials and Russian counterparts in Moscow to ensure mutual understanding of the approach and criteria for evaluating the progress of ESD toward achieving the project's objectives. We will select a limited number of key indicators to evaluate ESD's progress toward achieving the objectives of specific project components. (The Cooperative Agreement of April 1994 called for preparation of a strategy for measuring the impact of program activities toward meeting specific objectives, but apparently it was not prepared.)

Following the meetings in Moscow project sites in Buryatia and the Chita and Irkutsk oblasts will be visited. Discussions will be held with ESD project staff and Russian counterparts, government officials, NGO representatives, and community leaders in all three regions to address the seven objectives.

The following questions are illustrative of those that will be asked. With the variety and complexity of activities in which ESD is involved (12 project components with a total of 95 specific objectives), our approach will be to prepare and adapt questions to the particular situations of each project activity as we learn more about its status and specific conditions. Therefore, in all interviews, participants will be encouraged to express their opinions regarding what they believe are important questions and issues relevant to ESD's effectiveness and impact.

Sustainable development and protection of biodiversity is a complex, ongoing process. Courses of action must be assessed and evaluated continually. The process depends on improved knowledge of ecosystems, which combines biological, physical, economic, and social variables. Even if ecosystems are brought under optimal management, decisions will continue to be made about trade-offs and special interests, and against a background of a changing society and expectations. That process involves the following types of activities:

Resource inventory, information collection and assessment,

Identification of management options and their possible consequences,

Conflict resolution and choice of management direction,

Development of coordinated management and mitigation actions, and,

Development decisions and allocation of resources.

Problems in integrated natural resource management and sustainable development projects often arise when this management sequence is interrupted, especially when there is choice of management direction before the affected parties have adequate information and participation, or decision-making, and resource allocation before fair resolution of conflicts.

B Illustrative Evaluation Questions

General Issues

The "Program Description for a Cooperative Agreement between USAID and ESD to Promote Ecologically Sustainable Development in the Lake Baikal Region" provides a list of proposed program components and demonstration projects. To ensure that the evaluation team has a clear understanding of these components and the related projects and to provide a basis for assessing progress to date, ESD will be asked to respond to the following questions, which address all facets of its efforts:

1. For each activity or set of related activities, what are the intended end results, impacts, or consequences? For example, what will be better or different as a result of the overall program as well as the component-specific efforts? If the result is not sustainable development (i.e., the

program's principal objective), how will accomplishment of intermediate objective(s) contribute to sustainable development?

2 Which of the intended end results or impacts have been achieved to date and what are the measurable indicators of these impacts? For end results not yet achieved a) what is their anticipated completion date, and b) what measurable indicators will indicate the existence of the intended end results? For example, under what circumstances would a neutral observer recognize the existence of the desired end results?

The "Program Description" states that USAID's support of ESD will allow the implementation of models covering ecotourism, agriculture, land use, sustainable forestry, and a settlement zoning plan (activity 6 in the "Program Description") ESD will be asked to describe and explain each model and then asked

3 For each of the five models, what are the key independent and dependent variables and how are they operationalized? What measurable indicators indicate the effective and sustainable implementation of these models?

4 How will ESD know whether the five models can be implemented elsewhere in Russia (activity 7)?

The "Program Description" states that USAID's support of ESD will "assist in the implementation of small-scale prototype economic development projects that demonstrate environmentally sound practices "

5 In what ways do such projects demonstrate environmentally sound practices? What criteria do ESD and USAID/Russia use to measure or ascertain the projects' sustainability and success in achieving environmentally sound practices?

Issues Raised in the Scope of Work

Objective One *Assess and document the effectiveness and impact of the ESD program in strengthening the capacity of the local governments and NGOs in Buryatia and the oblasts of Irkutsk and Chita to implement environmental management responsibilities, in order to promote ecologically sustainable development and biodiversity protection in the Lake Baikal region*

1 What criteria for measuring the project's overall success have been developed? Have the indicators been developed? Are appropriate data being collected to determine the project's movement towards its overall goals? For each activity or project component, what baseline data and related Russian studies are available? For sites or activities without baseline data, how does ESD identify the changes that have occurred and that can be attributed to its efforts?

2 What process was used to identify stakeholders and involve them in development of the projects?

- 3 In what ways has the project affected or increased citizen participation in environmental protection? With what consequences? What activities have occurred as a result of the program (e.g., local clean-up projects, educational materials, public awareness campaigns)?
- 4 How are the public and stakeholders involved in decision-making for design and implementation of the 12 projects? What is the mechanism for continued public participation, and how can the success of that participation be assessed?
- 5 What have been the general qualitative impacts? Summarize the data on these indicators and discuss situations in which a) results are notably strong or weak, b) indicators are especially meaningful or inappropriate, and c) data are not available to make a judgement. In the latter instance, what is ESD doing to remedy this situation?
- 6 How do existing government agencies view the creation of permanent land-use planning agencies? What authority do the new agencies have to develop cooperative actions among government and private sectors? To what effect? What is better or different as a result of their creation? How and in what ways do ESD's efforts provide an explanation for these changes?
- 7 How has the existence of the new agencies contributed to strengthening the capacity of local governments to implement environmental management that promotes ecologically sustainable development and biodiversity protection in the respective oblasts? How has the ESD program assisted? How can this assistance be improved?
- 8 Has there been an assessment of the human resource and training needs for the key sectors that have to be involved to achieve ecologically sustainable development in the region? Has ESD assisted these key sectors in assessing their needs for human resources, funds, facilities, materials and equipment? If so, what strategies have been developed (and/or implemented) to satisfy these needs? With what success to date? How have the subjects of these assessments responded to date?
- 9 Have the ESD projects conducted skills audits as a basis for determining local training needs? What training programs have been designed to meet the needs and how is their effectiveness determined? By what process has ESD determined local training needs?
- 10 What impact has the program had on policy development at the local, regional and/or national level? What are the indicators of this impact?
- 11 What kind of coordination between ESD and local and federal governments exist? What are the indicators and consequences of this coordination?
- 12 What technical capacity do the NGOs have to implement environmental management? What managerial and technical skills do they have now that they did not possess when the ESD program began? To what extent can these skills be attributed to ESD's efforts?

13 As a result of ESD's efforts, what abilities do NGOs have to help replicate successful projects on a larger scale? What abilities do they have to sustain themselves when outside help is reduced or withdrawn?

14 Are NGO activities in the region coordinated? If so, how? Is there a government agency responsible? If so, is it effective, and what are the quantitative measures of effectiveness?

15 Are the protected areas associated with the ESD program being planned (or used) to provide logistic support for research, training, monitoring, and environmental education? Are educational institutions in the area supporting these programs? What numbers of students are involved? With what effects or consequences?

16 Do ESD's projects have the support and involvement of all levels of the Russian Government? If yes, what are the indicators of this support? Is the Interministerial Commission on Environmental Protection and Natural Resource Use actively involved and dealing with sectoral and intersectoral issues and linkages at the national and regional level? Are the mainstream sectors of government and of donor organizations (e.g., public works, transportation, agriculture, energy development, education and public health) involved in the ESD program and the development of project activities? If so, with what consequences? What activities are there in which agencies have interests in common (e.g., information gathering, inventory, research, monitoring, GIS, education and training)?

Objective Two *Assess and document the effectiveness and impact of ESD's efforts to promote market-based incentives for improved natural resources management*

1 What are ESD's goals and objectives in regard to such incentives? What must occur before successful accomplishment of the goals and objectives can be claimed?

2 What are the policy and legislative needs in regard to developing market-based incentives for natural resources management in the region? How is ESD addressing these needs?

3 What mechanisms has ESD developed to promote market-based incentives?

4 How successful is ESD in promoting market-based incentives in the region? Please describe these incentive systems and illustrate by reference to specific laws, policies, or regulations that mandate or allow the use of market-based incentives at the project sites and that have resulted from ESD's efforts. In what ways have these incentive systems altered or improved regional environmental management? What evidence supports or justifies these findings?

5 ESD proposes to add a new component on investment and small business development in 1996. What are the objectives and intended outcomes of the new component? How valuable and critical is this addition to the project? What would be the consequences of not adding new components?

Objective Three *Evaluate ESD's and USAID's technical and financial management relative to the program's objectives*

ESD management

1 Is the project managed effectively? To what extent are field staff included in the decision-making process? To that effect

do field staff possess appropriate experience and qualifications to undertake all aspects of the program, including administering the program, providing technical assistance, monitoring and evaluating on-going activities, etc? Does ESD have a continuous system of monitoring and evaluation? If so, how well does it function, and what are its strengths and weaknesses?

how well do the field offices in the Ulan-Ude, Irkutsk and Chita work with each other and with the US-based office? How are communications and cooperation among the offices maintained? What is the division of responsibilities between three field offices and ESD headquarters? Is this division appropriate and effective? Is the office in Ulan-Ude an effective implementing center for the field activities?

how well are local staff integrated into the program and encouraged to take initiative in administering it? What are the indicators that ESD uses to assess the effectiveness of this integration?

how are decisions about policy and finances made in ESD? Is that decision-making process effective?

how often are the field trips taken by US-based staff, what criteria are used to determine their frequency, benefits, and consequences?

2 Are all project staff, including Russian and expatriate consultants, given written scopes of work (or terms of reference) before each field visit? Do these scopes of work specify intended outcomes and required deliverables? Are ESD's staff and consultants required to complete trip reports that summarize accomplishments and outcomes?

3 Does ESD have a system a) to monitor the successful completion of its scopes of work, and b) to evaluate the quality and timeliness of its consultants' performance?

4 Is the percentage of resources devoted to management costs appropriate for the scope and nature of the ESD program? Explain

5 How effectively has ESD dealt with the unsettled judicial, financial, and banking conditions in the NIS in the administration of its program?

6 How efficient is ESD in submitting quarterly and annual reports to USAID/Russia and USAID/Washington? Are these reports responsive to USAID's needs and requirements?

7 What approach is used at each project for decision-making? How effective are these approaches?

8 Does each project have a managing board? If so, what are their responsibilities, and how are members selected and replaced? Have by-laws been developed?

9 What internal processes are used by the projects to evaluate their progress and successes and to correct problems?

10 What are the ESD requirements for subproject reporting? How accurate are the narrative reports?

11 Is ESD in compliance with the requirements of the "Fly America Act," which requires the use of U S flag carriers?

USAID Management

1 How adequate and effective is USAID/Russia's management of the cooperative agreement with ESD? What improvements can be recommended, if any?

2 Is the division of management responsibilities between USAID/Russia, the State Department, and USAID/Washington clearly defined and implemented?

Objective Four *Evaluate how ESD's program fits into the overall USAID assistance strategy and recommend ways to coordinate ESD activities with other activities of the U S Government and of international donors*

1 Has ESD effectively supported the U S Government's overall strategic objectives for Russia? Has ESD effectively offered programs to meet the country-specific strategies for Russia?

2 Is there, or has there been, a systematic effort to identify all of the major development activities and initiatives in the region that may relate to or impact on the ESD project objectives? If not, why? If yes, please provide examples to demonstrate how ESD is using the information to improve the program's effectiveness and implementation

3 Have regional projects similar in objective to the Lake Baikal project been contacted? Does ESD promote exchange of information and encourage interregional cooperation with such projects? If yes, with what consequences?

4 How efficient and effective is the program in using U S assistance in Russia in ways that have meaning for citizens of Russia? How widespread is local awareness of the program, the

U S Government's participation in it, and its impact? What are the program-related consequences of this awareness?

5 Has ESD effectively cooperated with other ENI/ENR contractors, other U S Government programs and other major donors? How effective has ESD been in coordinating with the GEF's Russian Federation Biodiversity Conservation Project? What indicators does ESD use to measure or ascertain the effectiveness of this cooperation?

6 Has ESD effectively cooperated with other international and Russian NGOs in working on similar issues/geographic area? If yes, with what consequences?

Objective Five *Determine if, and the degree to which, the ESD program should be more structured or focused on specific goals*

1 What data did ESD analyze to determine that sustainable development is not occurring in the Baikal region?

2 Is the current project structure (12 subprojects in three regions) relevant to achieving specific objectives and the overall program goal? Are the pilot projects intended to demonstrate an overall comprehensive ecologically sustainable development approach? If so, how do the discrete activities combine to achieve that goal?

3 What criteria were used to determine that the projects undertaken would be useful as models for the rest of the Baikal region?

4 What type of technical assistance does ESD provide in support of achieving these goals or results? Which of these has been particularly effective or ineffective? Why? What other types of assistance, if any, should be added to the program?

5 What are the most successful activities implemented by ESD? Have these activities had an impact on the pride and confidence of Russian citizens and organizations?

Objective Six *Determine the degree of sustainability of the ESD program*

1 What types of technical assistance does ESD provide? Which of these has been particularly effective or ineffective? Why? What other types of assistance, if any, should be added to the program?

2 What indicators illustrate that sustainable development is occurring in the Lake Baikal region as a result of the 12 projects?

3 What are the most successful activities implemented by ESD? What type of activities can be recommended for dissemination in other parts of Russia? How will the projects undertaken

be developed into models for other regions? When will efforts begin to apply these models elsewhere in Russia?

4 What mechanisms have been (or are being) developed to measure overall progress towards sustainable development as a result of the projects?

5 Which ESD programs are likely to continue after U S funding ends? In other words, are their positive impacts sustainable?

6 Are sustainability plans being developed for each project for continuation at the termination of initial funding?

7 Has ESD been successful in leveraging additional donor funding, including the local government? What strategy has ESD developed to leverage resources and has it been effective?

8 To what extent have ESD spinoff activities been funded by other donors? Have innovative mechanisms to fund promising program initiatives been developed?

Objective Seven *Determine if additional activities should be undertaken in the future to ensure the project's sustainability, if so, provide specific recommendations*

1 Has ESD justified a need for additional program-related funding, and has it developed a plan for its use?

2 If additional funding is provided, should the program's goals and objectives be altered? Will new or additional outcomes or impacts occur as a result of the additional funding?

C Debriefing and Draft Evaluation Report

After the field program review, the team will return to Moscow to meet with USAID and U S Embassy officials and Russian counterparts at the central government. The team will debrief staff of USAID/Moscow and USAID/Washington on the field interview results. The presentation will include a written summary of tentative findings and conclusions. A draft final report will also be submitted to USAID/Moscow before the team departs Russia (see draft outline below).

D Final Report

After USAID and ESD have reviewed and commented on the Draft Final Report (within 14 days of receipt), the team will prepare a Final Report responsive to the comments. The report will not exceed 25 pages and will include an executive summary of findings and conclusions not to exceed three pages. It will include annexes such as a bibliography, list of persons interviewed and agencies represented, and a list of sites visited.

E Schedule (as approved by USAID/Russia)

March 7-8 team building meetings in Washington, D C
April 20 arrival in Moscow
April 20-25 Moscow
April 25 Gilbert and Boyer depart for Lake Baikal region
May 18 Gilbert and Boyer return to Moscow, Tobin arrives in Moscow
May 23 Mission debriefing and submission of draft report
May 24 team leaves Moscow
May 24-June 7 Mission and ESD review draft report
June 7-21 revision of draft report and submission of final report to USAID/Russia

III Draft Outline for Evaluation Report

- A Acknowledgments
- B Executive Summary
- C Introduction
- D Objectives and Methodology
- E Effectiveness of ESD Project
 - 1 Strengthening capacity of local governments
 - 2 Strengthening capacity of NGOs
 - 3 Promoting Market-based Incentives for Improved Natural Resources Management
 - 4 Financial Management Relative to Project Objectives
- F Coordination of Project with Other Regional Donors
- G Sustainability of Project and Funding Requirements
- H Conclusions - Priority Issues and Recommendations
- I Appendices
 - Documents analyzed
 - Sites visited
 - Persons interviewed and agencies represented
 - Scope of work

Appendix C People Contacted and Sites Visited

1 Chita Oblast Tour April 25 to 29

ESD's Baikal Chita Program Staff

Irina Glazyrina, Director Chita Regional Land Use Department
Tatiana Strizhova, Regional Coordinator Arakhley Lakes Model Project
Tatiana Savenkova, Program Associate, Chita Baikal Regional Department
Igor Mikheev, Refuge Manager Arakhley Lakes Refuge Model Project
Gennady Agafanov, Project Director Burkalsky Zapovednik Model Project

Chita Officials, Regional, and NGO Contacts

Sergei B Trofimov, Head of the Administration, Chita Region, Chita District Administration
Chita Regional Director of the Ministry of Forestry
Yuriy N Reznik, Rector, Professor, Association Member of the International Academy of Sciences Institute
Vladimir Michailovich, GIS Center Director, International Academy of Sciences Institute
Yurina Malchekva, Professor, Pedagogical Institute
Sergey Mironov, Director of Special Programs, Rural Enterprise Adaptation Program
Marina Tumanova, Director of Educational Programs, Rural Enterprise Adaptation Program
Representative, Center for Civil Environmental Initiatives
Teacher, Representative of "The Future Begins Today" Ecological Education Program
Representative, Association for Biodiversity Conservation

Arakhley Lakes Refuge Field Tour

Anatoly Kholmogorov, Dairy Farmer, Arakhley lakes Dairy Farms Subproject

2 Buryatia Republic Tour April 29 to May 9

Ulan Ude Meetings

State Officials

Vladimir G Baranikov, Minister, Ministry of Architecture and Construction, Republic of Buryatia
Mr Tabalaev, Deputy Director of the Regional Committee on Ecology, Environmental Protection and Natural Resources
Baer Gomboev, Vice Chairman of the Regional Committee on Ecology of the Republic of Buryatia
Seseg Budaeva, Sociologist, Buryat Institute of Social Sciences
Vasily Bokhiev, Buriat State Agricultural Academy, Chair of Land Use Practices

Baer Raldin, Director, Buryat Republic Land Use Committee

ESD's Buryatia Regional Program Staff

Sergei Shapkhaev, Regional Director, Buryat Regional Department on Lake Baikal

Vladimir Belagalovov, Assistant to the Regional Director

Tamara Szanjitsibikova, Kyakhta Model Project Director

Vecheslav, Kyakhta Model Project Associate Director

Yanjima Vaseleva, Sustainable Forestry Model Project Director

Andrey Suknyev, Ecotourism Russian Model Project Director

Leonid Lienkhoev, Kabansk Model Project Director

Vladimir Ignatrovich, Geologist and Cartographer

Dr Tsyden H Tsiybzhitov, Soil Scientist, Institute of Biology

Khizhenga Farms Model Project Site

Vladimir Bazhenov, Rural innovation Center Director

Sergei Moronov, Khizhenga Farms Model Project Director

Vladimir Tsedembal, Khizhenga Cooperative Director

Darzho Bazzaravich, Head of the Khizhenga Administration

Dasha Damdinov, Khizhenga Farm Manager

Dr Bacheev, Specialist on Rotational Cropping

D Boldashev, Head of Kudur Administration

C Babarshuyev, Deputy Head of Administration

Twelve Khizhenga Dairy Cooperative Farmers

Ivolginsky Field Tour

Leonid Bukov, Head of the Raion Administration

Roman Ibidenov, Ivolginsky Raion Administration

Dr Lubov L Abaeva, RAS, Buryat Institute of Social Studies

Dr Bimba Namzalov, Director of the Ecological Institute, The Buryat State University, Russian Academy of Sciences, Ulan Ude

Kabansk Field Tour

Leonid Lienkhoev, Project Director

Ecological Education Elementary School Teachers, Kabansk District Tamara Saprykina, Irina

Gurianova, Galina Shadrin, Tatyana Tpatova, Galina Mikkailina

Unit Director, Zabaikal Aviation Fire Fighting Unit

Ulan Ude NGOs

Galina Anosova, Committee on Ecology, Buryat Regional Department & NGOs Coordinating Committee

Baer Dugarov, President of the Geser Foundation and Club Sagan Dalı

Lıja Sandanova, Ecotourism Club "FIRN" and Director of Buryatia Youth Tourism Training School

Tuyanna Anacola

Oktyabrina Badshneyeva, Children's Clubs' Association

Valery Tolmatchev, "Tunka"

Okinsky Region Tour

Valery Mongolov, Head of the Raion Administration

Baer Sheristapanov, Deputy Head of the Raion Administration

Nicoleı Popaev, GIS Center Director, Orlık Office

Vladimer Puntunkeev, Head of the 50 Years of October Collective Reindeer and Yak Farm

Badma Puntunkeev, Reindeer Herder

Mr Nahansakov, Deputy Charman on Agriculture and Economy for the Okinsky Raion

Baer Dugarov, President, NGO The Geser Foundation and Club Sagan Dalı, Chairman, Raion Committee on Ecology

3 Irkutsk Oblast Regional Tour May 10 to 18

Yuri Udodov, Chairman of the Irkutsk Regional Committee on Ecology, Environmental Protection and Natural Resources

Representative, Irkutsk City Administration

Ludmilla Varfomoleava, Chairwoman, Irkutsk Regional Duma Committee on Ecology and Baikal Club NGO Member

Vitaly G Tolstov, Deputy Head of the Irkutsk Raion Administration

Valery Kamyshan, Irkutsk Region Administration, Head of International Protocol Dept

Dr Alexander Cherkashin, Systems Analysis, Institute of Geography

Dr Valery Mikheev, Landscape Analyst, Institute of Geography

Dr Ivan Ochivnikov, Director Irkutsk Committee on Ecology GIS Center and GIS associate staff

Dr Alexander A Koshelev, Head, Sector of Environmentally Clean Energy Supply of Baikal Zone

Lev S Belyev, Professor, Deputy Director, Siberian Energy Institute, Siberian Branch, Russian Academy of Sciences

Ron Sakar, Resident Project Manager, W S Atkins International, Technical Assistance to the Commonwealth of Independent States Energy Project

NGO Representatives

Max Evdokimov, Juridical Help NGO

Elina Rjepka, Coordinator of Tahoe Baikal Institute NGO and Advisor of Irkutsk Regional Administration, Tourism Department

Giorgi Nurullin, Coordinator, Siberian Center for Civic Initiatives Program

Maria P Safonova, President, Citizens' Information Initiative

Vladimir Berezhnik, Interbaikal NGO Ecotourism Newsletter

Jenny Sutton, Director, Baikal Ecological Wave NGO

Nathalia D Gubanova, Ecological Camp of Alto Russia NGO

Bolshoye Goloustnoye Project Tour

Maria P Safonova, Regional Program Coordinator, Director NGO Citizens' Information Initiative

Ludmilla Sigaeva, Russian Project Director, Ranger, Pribaikalsky National Park

Andre Bolshakov, Landscape Architect

Hank Birnbaum, American Program Participant

Pavel Kovaldo, Alternative Energy Specialist

Alexander Stolbov, Reconstruction Architect St Nicholas Church

Father Phiophan, Irkutsk Diocese Minister for St Nicholas Church

Fyodor Visotin, Craftsman NP Trails Project

Nina Petrovna, Head School master, Bolshoye Goloustnoye Community School

Olkhon Project Tour

Nicolay M Matoshkin, Head of the Olkhon Raion Administration

Vladimir Markasaev, Director of the Olkhon Center for Sustainable Agriculture

Anatoli Doksuev, Associate Director of the Olkhon Center for Sustainable Agriculture

Piotr Abramyonok, Director, Pribaikalsky National Park

Zoya Abdroshitova, Foreign Relations Specialist, Pribaikalsky National Park

4 Others

Richard Lanier, Executive Director, Trust for Mutual Understanding, New York City

James Sheldon, Executive Director, Weeden Foundation, New York City

Andrew Reynolds, Special Advisor for Technology and Sustainable Development to Deputy Undersecretary of State for Environment and Development, U S Department of State, Washington, D C

Michael Schneider, Senior Policy Advisor to the Undersecretary of State for Global Affairs, Department of State, Washington, D C

Jack LeSar, Academy of Educational Development, formerly of USAID/Russia

James J Tarrant, Environmental Policy Advisor, Office of Environment, Energy, and Urban Development, Bureau for Europe and the New Independent States, USAID/Washington

Terrence Tiffany, Director, Office of Environment and Health, USAID/Russia

Kevin Rushing, Deputy Director, Office of Environment and Health, USAID/Russia
Marina V Perfilova, Project Officer, Office of Environment and Health, USAID/Russia
Orion Yeandel, Contracting Officer, USAID/Russia
Yuriy Kazakov, Environmental Policy Expert, Office of Environment and Health, USAID/Russia
Christine Nasser, Environmental Advisor, Office of Environment and Health, USAID/Russia
David Miller, Environment Officer, U S Embassy, Moscow
Richard Miles, Deputy Chief of Mission, U S Embassy, Moscow
George Mahaffey, Office of Programming and Training, U S Peace Corps, Washington, D C
Douglas Frago, Director, U S Peace Corps/Russia
Valentin D Brovchak, Executive Secretary, Governmental Commission for Lake Baikal, Moscow
Alexey V Yablokov, Chairman, Interagency Commission on Ecological Security, National Security Council, Moscow
Valery Alexander Soloviev, Head of National Parks, Department of the Federal Forestry Service
Andrew Bond, World Bank

5 Ecologically Sustainable Development, Inc

George Davis, President
Antonia Bullard, Chief Executive Officer
Gordon Davis, Senior Vice President
Donna Beal, Vice President, Administration
Bob Glennon, Vice President, Programs
Kathy Pennington, Director of Finance
Dan Plumley, Field Manager
Zane Smith, Director of Policy
Arthur Pederson, ecotourism consultant

Appendix D Site-specific Recommendations

1 Arakhley Lakes Model Regional Sustainable Development for a Wildlife Refuge

Project Goal

Demonstrate how a proposed wildlife refuge can be established, staffed and managed in an area once rich with fish and wildlife resources but now ecologically damaged by Soviet-era forestry and agricultural practices

Location

Arakhley Lakes is located approximately 70 kilometers west of Chita and is composed of 20 water bodies. The area has several small communities that sustain themselves on fishing, forestry, and agriculture. A state-run farm is the largest operation in the area. Arakhley Lakes has a large number of summer dachas and attracts recreational visitors from throughout the Chita Territory.

The first phase of the Arakhley Lakes project focused on legislative adoption and baseline management practices. Legal designation of the refuge took one and a half years. Before its establishment, only 1 percent of land in the Chita Territory was legally protected. With the inclusion of Arakhley Lakes there is now approximately 3 percent of protected land in the territory. With these tasks accomplished ESD is working with its Russian colleagues to encourage sustainability by federal, oblast, and raion government officials and private support mechanisms. The refuge is staffed by the ESD Russian Project Director, Tatiana Strizhova, Refuge Director, Igor Mikheev, two rangers, and volunteers from the area and Chita.

Accomplishments

- Achieved protected status for the refuge
- In cooperation with the Chita Technical College, maps and written materials have been developed for the refuge
- Succeeded in facilitating the cooperation of three NGOs and two educational institutes to complete
 - a) Construction of two hiking trails--one five-kilometer trail to be used for environmental education trail and one 110-kilometer trail for overnight hiking
 - b) Lake clean-up activities have been completed by students in several areas
 - c) Trainer-to-trainer environmental education workshops have been held at the refuge educational center with participation and presentation from the refuge director
- Arakhley Lakes Refuge has provided two local schools with presentations and materials for environmental education
- Directors of protected areas in Chita region have formed an association and are working on the drafting and passage of a protected areas law for the region

- Have developed a natural resource inventory and an assessment of economic opportunities for the refuge
- Economic plan has resulted in a dairy subproject that has given technical assistance and equipment to the state dairy farm in order to increase production and properly manage manure
- Prepared an educational film, "The Way to Baikal," which illustrates the connection of the Lake Arakhley Area with Lake Baikal
- Experience in developing protected area has been transferred by assisting a group working on establishing a protected area in another part of the Chita Territory
- Have worked with raion officials to establish a user fee for the group use of Arakhley Lakes This tax has been approved and is intended to be used to help support environmental work in the refuge
- Have successfully written proposals for small grants to do projects in the refuge such as trail building and workshops

Indicators of Sustainability

The Arakhley Lakes Refuge has begun to develop the components of sustainability through its efforts at grant writing and having a user fee to support the refuge The refuge staff has been successful at involving both volunteers and NGOs in the refuge development efforts ESD's Russian project director and the refuge director have good relations with local and federal government officials This has helped to facilitate activities in the refuge and will help establish the refuge into the main stream of the current political structure In addition, the refuge's staff has enormous enthusiasm for the project, which is reflected in their talks and actions in regard to the refuge When speaking of the refuge's development, one can tell that the process has been empowering to them and has made people involved in the project feel that they can have control over resource protection and economic development in their region

Concerns and Recommendations

Activities at the Lake Arakhley project seem to be moving forward successfully and building the support and means for its continued sustainability As the Raion administrator stated, "We will not let the refuge fail," thus indicating the local government's support for the project's continuation What seems to be lacking at this point is a well-developed strategy for continuation of the refuge and its components beyond the life of the cooperative agreement

Recommendation The Arakhley Lakes Refuge should develop a long-term management and sustainability plan that goes beyond the end of the cooperative agreement This plan should address adoption of policies and regulations for the refuge and actions for further development of the refuge's recreational, fisheries, wildlife, and economic components A strategy for both short- and long-term funding should be developed to support the management plan

Recommendation Directors and rangers at Arakhley Lakes seem to be focused on enforcement of regulations and collecting penalties from users Staff should also be trained in activities that

include the “ambassadorial” aspect of refuge management, such as positive promotion of the refuge to users and enforcement through educational activities rather than enforcement of penalties ESD envisions that the ecotourism project will promote “ambassadorial” or soft management techniques through the seminar on “Tourism Carrying Capacity and Recreational Monitoring Management,” which is planned for summer 1997

Recommendation To date, milking equipment for the farm has not been delivered, even though ESD’s consultant worked on the project over a year ago This has caused stressed relations between the farmer and the refuge and impacts ESD's credibility Delays have been caused by difficulties in adapting fixtures to work with the Russian equipment and ESD's change of US project managers Expediting delivery and installation of milking equipment is important in order to maintain project credibility and to illustrate the effectiveness of American assistance

Recommendation Establish lakes and habitat areas with the least impact to be used as benchmarks for monitoring efforts in the refuge

Recommendation Document the process taken to establish Arakhley Lakes as a protected area so that it can be used as a model in other parts of the Baikal region and Russia and USAID’s ROLL Project

2 **Bolshoye Goloustnoye Community Redevelopment for Ecotourism**

Project Goal

Revitalize a community, which has lost its economic base and is now surrounded by a national park, through sustainable economic development and beautification while coordinating with environmentally sound energy development

Accomplishments

- Developed electric generation through the use of solar panels for supplementary electric power to the community school
- Held community meeting to gather input for waterfront park and church restoration
- Provided the means for the external restoration of the St Nicholas Orthodox Christian church, which had fallen into disrepair after World War II
- Have begun ecological restoration for a new waterfront park from an area that had been covered with gravel from the building of a boat dock
- Created nature trail and signage in adjacent national park
- Developed a local history museum
- Gained permanent legal protection for the lands surrounding the restored church and the park

Indicators of Sustainability

The exterior of St. Nicholas Church is completed with the interior work to be done by the community. The church now has a priest and the national park has committed to build a heater for the church and is discussing the rehabilitation of a cabin in which the priest can live. Discussions are being had with the Russian Orthodox Diocese to take over maintenance and completion of the church.

The national park's staff will maintain the trails built.

The waterfront park will cost approximately \$100,000 to complete the demonstration area, for a total cost of \$134,000. The total project of waterfront restoration is estimated at \$7 million dollars. The oblast contributed \$14,000 in 1995, and has committed \$10,000 for 1996. The project team has given serious thought to how the remaining \$90,000 will be raised. An illustrated promotional booklet (in Russian) has been developed for use in seeking funding. This booklet has already brought a 55 million ruble contribution and is expected to yield additional support.

Concerns and Recommendations

When the evaluation team was in Bolshoye Goloustnoye there was a public meeting held to discuss the waterfront park. Forty-four people attended the meeting. Many of those who attended did not seem to have complete knowledge of the park's development and expressed fears that the community would no longer own or have access to this land and that children would no longer be able to play there. There seemed to be a lot of misinformation about the development but of primary concern was the possibility of jobs for residents to help build the park. Several people stated that if local people would be hired it would be a good thing. A variety of other issues, which overshadowed discussion about the park, were raised at the meeting. The primary issue was that while this development might provide jobs, there is no reliable electricity in the community and people believe this is urgently needed. The lack of jobs is an issue and the lack of proper garbage disposal was discussed. Some people asked why they should make the face of the town beautiful (waterfront park) when the rest of the town is filled with garbage with no proper place to dispose of it. During the meeting the idea of a citizen advisory committee was introduced as a way to work on these issues. This idea was supported in the meeting with a first meeting planned in July. This is an idea ESD has suggested since the project's beginning.

Recommendation Develop a citizen advisory committee as a means to shape and refine the waterfront park and other ESD activities in the community. Use this group as a means to address the issues of concern and more completely involve the public.

3 Kizhenga Farms

The Rural Enterprise Adaption Program (REAP) manages this project site as a subcontractor to ESD Mariya Jumanova is Director of Educational Programs, and Sergey Mironov is Director of Special Programs

Project Goal

Develop model dairy and vegetable farms that can serve as training centers for sustainable agricultural practices and food processing

Location

The Kizhenga model farms are located approximately 200 km east of Ulan Ude in the village of Ulzita, Kizhenga District One farm emphasizes dairy production, the other sheep, vegetables, and grain production There are 14 cooperative farms and 342 private farms in this area

Accomplishments

- Approximately 160 farmers from the area were educated about cooperatives, growers associations and alternative markets through training from a professor of agriculture from the University of Idaho
- With funding assistance from the Buryat Republic, an old machine shed was renovated to have 35 free stalls for cattle, calf pens, and a three-cow milking parlor
- Herd health is being improved through better feed and forage, records are being maintained, and better management to segregate beef cows from dairy cows
- Milk-processing equipment and a meat smoker have been purchased for the use of a farmers' cooperative that is to be formed
- Farms have been evaluated for more appropriate grains and grasses that will protect the soil and water resources and improve overall farm production
- In the summer of 1996, a U S agricultural specialist circuit rider will be based in the region to transfer successes throughout the Baikal region
- A high school agricultural training program trains students in successful agricultural and environmental practices as well as farmer workshops and trainer-to-trainer seminars
- Through training from American specialists and the Siberian Agricultural Institute, in conjunction with the Kizhenga Farms Project, farmers have been trained and have adopted an organic fertilizer-biological crop rotation system for grain production This has increased grain production threefold on one farm Farmers in 13 raions in the Baikal region have adopted the technique

Indicators of Sustainability

The milk cooperative is supposed to sustain itself through dues and milk sales. To date the cooperative has legally formed but currently has no active members and no dues have been collected. People are waiting until after the presidential election to see what will happen before putting money into anything. The training center does not have financing or have a plan to obtain financing beyond that available through ESD. The director stated that workshops and seminars could spread the word about the project but it is rare that these happen due to financing problems. The model farms have no strategy on how to educate other farms about their success. When asked how others could benefit from the project, it was stated that "word of mouth of the success would be sufficient." Others suggested workshops, information packets, and news articles. With current financial difficulties at the raion, oblast, and republic levels, it appears that the project's long-term sustainability is problematic.

Concerns and Recommendations

Milk-processing and meat-smoking equipment purchased with USAID's funds has been on-site for eight months and has yet to be connected for use. The team was told on April 30 that May is peak milking time and that the equipment would be connected in May. The stated reason that the equipment was not yet operational is that the farms paid a contractor 25 million rubles, or about \$5,000, in advance to complete the project, but the contractor neither did the work nor returned the money. Consequently, no money is available, so the farmers do not have funds to connect the equipment. The Buryat Republic provided the original funding for this connection. The building has been renovated and partially wired for the milk processing plant. The evaluation team did not see the meat smoker but was told that it has been purchased. It too has not yet been set up.

A solar hot-water heater was assembled eight months ago but has never been used. Sixteen of the 30 glass plates on the cells are already broken, supposedly by children throwing rocks and because of strong weather. Funds are not available for them to be replaced.

The model farms for dairy and vegetables so far appear to have benefitted primarily only the two farmers who received assistance from the project, but the activity has the potential to benefit the region. One of the model farmers stated that due to the assistance, and the increased crop production that occurred he received, he no longer had any debt and was in the "black" financially. The strategy of using "word of mouth" as a means to replicate the model farms' success will not be a sufficient strategy relative to the money invested into the project. Other methods of information exchange and transfer should be developed.

The training center has not developed any training materials for farmers and seems not to have funding to present workshops and seminars. Without financing and materials, few farmers will benefit from the work that has taken place. It is anticipated that the agricultural circuit rider working in the summer of 1996 will assist in developing farmer training and materials.

Recommendation The connection and operation of the milk-processing equipment is an important component and is the key to developing a milk cooperative. Future funding should be tied to successful completion of installation. The same applies for the meat-smoking equipment. Repairs should be made to the solar unit and either a protective mesh or security fence put in place to protect the glass plates from future damage.

Recommendation A concrete strategy should be established and implemented for use of the model farms as demonstration sites and assistance locations for farmers to see and learn techniques for making their farms more productive. Arrangements should be made with the participating model farmers to speak before groups and give tours of their farms.

Recommendation Training materials should be developed for the training center in an easy-to-use format and language content for area farmers. A strategy should be developed on how to secure funding for presenting training and workshops so that useful information gained during the project can be transferred to other interested farmers.

4 **Kyakhta**

Project Goal

Provide for a vibrant, living historic museum (similar to Historic Williamsburg) at Kyakhta, the “Sandy Venice” of the mid-1800s, the principle trading center situated on the Chinese-European Tea Route.

Accomplishments

- Historic data and cadastre GIS system is being developed with 50 million rubles of funding from the Buryat Ministry of Architecture and Construction
- Workshops for architects were held in historic restoration techniques
- Inventory of historic sights completed and mapped
- Tourist/historic guide to Kyakhta has been developed for foreign distribution
- Two historic sites are near completion of restoration--a museum and one of the original old houses, which is now used as an orphanage
- Students at the orphanage are being trained to do restoration and carpentry work so upon graduation they can be employed in the city restoration project
- Project is coordinating with ESD's ecotourism efforts to promote the city to tourists
- Apartments are being prepared for tourist use, ESD's ecotourism consultants will train these managers
- Agreement has been reached with the Buryat Ministry of Culture to restore an historic cathedral

Indicators of Sustainability

GIS work for the city is being completed with 50 million rubles of funding from the Ministry of Architecture and Construction of the Buryat Republic. The Kyakhta project has received a small-city grant from the federal government for continued restoration of the historic monuments and buildings. A Russian Federation program will provide 328 million rubles between 1997 and 2000 to the Kyakhta project. These funds will serve as the basis for the continued work on the project and the city's restoration and development.

Concerns and Recommendations

Establishment of a free trade zone with Mongolia is one of the project's objectives. The border is now difficult to cross due to problems with visas and other political issues. While creation of a free trade zone would be a benefit to Kyakhta, it does not seem likely that ESD will be able to make this possible in the time remaining. The national governments of Russia and Mongolia must first address issues of trade and border regulations. ESD may be able to facilitate discussions but focusing on historic restoration and ecotourism in the city are likely to be better objectives on which to focus resources.

5 Okinsky Sustainable Development for a Natural Anthropological Reserve

Project Goal

Develop and implement a model land-use planning process for the *Comprehensive Program's* proposed Okinsky Natural Anthropological Reserve that can serve as a model for cultural and natural resource protection for similar areas throughout the Russian Federation.

The Okinsky Raion is a remote raion in the Buryat Republic. Its land area is approximately the size of Vermont and has an estimated population of 5,000. In the 1960s, the centralized government ended traditional herding and land use that had occurred in the area for centuries and implemented wheat growing as the main livelihood. Unfortunately, due to the harsh climate the wheat rarely reached maturity. Gold and other types of mining also became a primary part of the region's economy during this period.

ESD's project seeks to reintroduce traditional land-use activities, such as reindeer and yak herding, in combination with protection of natural resources and the cultural integrity of the region. The Deputy Chairman for Land Use in the raion, Baer Sheristapanov, stated that the ESD project has been successful in enhancing the traditional land use and agricultural and natural resource use in the raion. Sheristapanov feels that the *Comprehensive Program* is best used as a model for implementation of locally based projects. The evaluation team found a high level of support for the ESD project throughout the Okinsky Raion.

Accomplishments

Subproject Anthropological Reserve

- Developed GIS maps and data base for Okinsky including a variety of thematic layers
- Have undertaken a comprehensive land-use planning process and design for Okinsky that includes performance standards for all land uses, including mining and road-building practices, support for ecotourism, and local clean-based industry
- Three public meeting were held in each community in the Okinsky Raion
- Prepared most of the required documents for protected land designation
- Working to secure native peoples status for Soyot peoples in the region
- Helped to establish Geser cultural area
- Developed agricultural enhancement plan for Oha region
- State Duma and local population have approved the Okinsky Declaration

Subproject Reindeer reintroduction

- Introduced 63 Tofilarian Reindeer into former reindeer habitat, herd now numbers approximately 100 and more calves will expected during the 1997 birthing season
- Five herders have been hired to care for the herd
- Have researched potential markets in the United States for reindeer horn

Subproject Yak herd genetic improvement

- Purchased 33 top quality yak for production of high quality yak gene stock, herd now has 400 pedigree females
- Herd is currently being evaluated to gain status of pedigree herd The yak herd will be the only one in Russia designated as a republic-level high quality herd

Indicators of Sustainability

The designation of the Okinsky territory as an Anthropological Reserve is well underway. Unfortunately, a change in the protected land law now requires multiple documents for designation versus few documents when the project began. Most of the required documents are now complete but the last ones are the most expensive. It is hoped that remaining ESD funds will be sufficient for completion of these documents and gaining of protected status. The raion strongly supports this action, but the raion's current financial situation does not allow it to put resources towards this effort.

The reindeer herd is steadily growing in size, but herders estimate it will be two to four years before there will be sufficient antler harvest to sustain the project. Over the last six months herders had only received 50 percent of their salaries, with that part coming from ESD funds. The raion's budget problems did not allow it to contribute the 50 percent they had committed to provide. ESD has paid for this 50-percent salary deficiency and has committed funds to cover full salaries for herders until December 1996, after which time the project will have to be self sufficient. Research undertaken by the project director and ESD's staff indicates reindeer antler can range in selling price from \$80 per kilo in the United States to over \$200 per kilo in

southeast Asia. The project is expected to test the market this year and hopefully begin to provide some income. There exists a level of concern about whether the project can financially sustain itself until antler harvest is sufficient for income needs. ESD is looking for other appropriate funding sources to continue the project until it is self sustaining.

The yak herd has good prospects for sustainability. To date, 80 million rubles per year have been allocated from the federal budget to sustain the herd but another 160 million per year are needed. The herders plan to sell 80 head of nonpedigree yak for meat, which should generate 56 million rubles, and to sell 30 pedigree yak for breeding stock, which will produce approximately 45 million rubles. In addition, when the herd receives pedigree status the farm will receive 460,000 rubles per yak from the federal budget versus the 206,000 the farm currently receives. The herd is reproducing and sustainability looks good for the future.

6 **Olkhon Island**

Project Goal

Develop a model sustainable economy based on traditional agricultural land uses and ecotourism based on cultural, national park and wildlife resources.

Susan Witt of the E. F. Schumacher Society manages this project site in conjunction with ESD. The Olkhon site has 18 objectives, two are completed while the others are in process or have been combined together in some instances. Activities at the site are to be completed by 1997.

Accomplishments

- Created two sustainable agricultural centers, one on Olkhon Island and one on mainland Olkhon Raion, to help farmers develop sustainable agricultural practices.
- Researched historical farming and food-storage techniques, draft information sheets have been developed.
- Evaluation and research being done on meat- and wool- processing equipment for farmers' use.
- In the process of developing GIS land-use maps for Olkhon Island as part of the refinement process of the *Comprehensive Program*.
- Students and NGOs have completed beach clean-ups on Olkhon Island.
- Public meetings have been held in all communities on Olkhon Island as part of the land-use planning process, a public survey is being developed for use in mid-1996.
- A citizen land-use steering committee has been established with representatives from the raion administration, including its governor, the fish factory, the agricultural center, pensioners, farmers, heads of schools, head of the state farm, the park service, and the Institute for Geography. The committee has met four times on the land-use plan.

- A landscape and protection plan has been created for Burhan Cape, the most scared Buryat site
- Demolition plans for the gasoline facility and a relocation site plan have been approved
- The Irkutsk Oblast Committee on Ecology has committed 80 million rubles to this project
- The ethnographic museum has been expanded and will also serve as a visitors' center
- Historical and legal documents on the conflict between Olkhon Island communities and the national park are being researched
- Have experimented with marketing handmade socks and mittens produced by women in the United States

Indicators of Sustainability

The agricultural center on mainland Olkhon Raion plans to sustain itself with fees charged to farmers for technical assistance and from profits from the wool-processing operation. To date, this center has not determined the amount needed to operate the center or the wool-processing facility in terms of operational costs, labor, maintenance, etc. The director of the Agricultural Center believes there is a market in the area for processed wool. To the evaluation team's knowledge, this has not been verified. The team was told by two others that the only place to sell wool of any type is to a wool-processing center in Ulan Ude, which has not paid farmers for their wool for over eight months. The sale of woolen socks and mittens in the United States has potential, but there are problems with transporting the product. Moreover, local women have raised the price from \$5 to \$7 per pair and now want all payment in advance. There have also been problems with sizes of fingers in gloves and foot sizes being too small for most Americans. These problems can be addressed and sale of these products can create a local demand for the processed wool. The other aspects of the Olkhon project do not have a clear sustainability strategy developed at this time.

Concerns and Recommendations

One of the major issues in completing the Olkhon Island project is the difficulty getting to the island at various times of year. In addition, the lack of reliable communication with the island makes monitoring the project difficult. There also seems to be some problems with distribution of finances to the project from the mainland administration. The Associate Project Director on Olkhon Island, Anatoli Doksuev, said that he had not gotten his salary or operational money since June 1995, although he said he had completed proper financial reports. He stated that situation had delayed completion of his work. ESD's staff is attempting to address and rectify the problem. (Since the field visit this problem has been resolved. The Olkhon Raion Administration has reallocated funds it had designated for the project as part of the project's agreement, salary, and operational money for the associate project director are in-place.) Doksuev also stated that he had little knowledge of what the counterpart agricultural center was doing on the mainland and that it did not cooperate on development of materials for farmers. In addition, neither of the two agricultural centers had a strategy for dissemination of information to farmers and were primarily focused on research.

Wool processing is a useful venture that will benefit local farmers, but it is important to develop at least a rudimentary business plan for its operation. This plan would include not just equipment costs, which have been researched, but market identification, operational, labor, transportation, taxes, and other associated expenses so that the full cost of operating the processing facility can be determined. This is essential in evaluating whether purchasing the equipment is cost effective and determining what fees need to be charged for use of the processing facility.

Recommendation ESD should foster closer cooperation between the two sustainable agricultural centers and help them develop an adequate mechanism for dissemination of the information they have collected and developed. This mechanism can include low-cost leaflets, workshops, seminars, and on-site technical assistance.

Recommendation Business plans should be developed for potential equipment purchases to be used in self-sustaining community businesses before the equipment is purchased to ensure it is a worthwhile investment with the means to sustain operation at least a break-even level.

7 Technical Assistance Related to Land-Use Planning

Project Goal

Provide legal and practical assistance to Russian officials in the formation of regional departments to implement the *Comprehensive Program*, including the drafting of appropriate laws and regulations, creation of governmental and business entities, opening of bank accounts, and refinement of the *Comprehensive Program*.

A Chita Regional Department on Baikal

Departmental Goals

- Ensure that existing and new projects work within the framework of the *Comprehensive Program*
- Coordinate land-use activities, legislative initiatives, and program implementation at the regional level
- Facilitate communication concerning Baikal Law at the national level

Advantage of Having the Baikal Regional Department

The department's director, Irina Glazyrina, stated that the advantage to having the regional department is that it now has financial, technical, and management tools to manage natural resources on a regional level and the means to facilitate interagency cooperation, something that was not possible in the past. The Chita Regional Department on Baikal is officially established within the Chita Raion and Oblast Administrations. Glazyrina has direct access to the newly

appointed governor of the Chita Oblast on matters of environmental and sustainable development policy. Glazyrina received training in land-use planning and regulation through on-site consultations with ESD's attorneys and other ESD personnel. She and her staff participated in several strategy discussions with ESD staff for achieving legal implementation of the *Comprehensive Program*. Glazyrina received training in biodiversity conservation in the United States through a trip that ESD arranged. She stated that the *Comprehensive Program* will be used to implement the GEF program, which she worked on during the first phase of development. She has also worked with the Forestry Service to use multiple-use concepts from the *Program* in the development of its ten-year plan and is working with the service to adopt forestry standards from the *Comprehensive Program*.

Accomplishments

- Coordination on land-use activities with the federal Forest Service, Raion Administration, Chita Technical College, Chita Institute for Natural Resources, Pedagogical Institute, Buryat Association and other NGOs
- Helped to coordinate and establish a GIS Center at Chita Technical College. This led to the creation of a new department at the college that is training students for new careers in GIS and its land-use applications. The center is creating maps and overlays for ESD and will begin municipal GIS work.
- Commented on three drafts of the Baikal Law pending at various times in the federal Duma and prepared a draft Baikal Law intended for implementation of the *Comprehensive Program*.
- Conducted a four-day workshop attended by Russian and American Lawyers. The workshop was devoted to answering the question, "How Can the *Comprehensive Program* Be Implemented through Legislation in the Baikal Region?"
- ESD helped to facilitate the development of a proposal to USAID's Commodity Import Program, which resulted in the Chita Technical College receiving \$120,000 of GIS software and computer equipment.
- Forest Service has now opted to create its new ten-year plan using a multiple-use concept for forest lands based on the *Comprehensive Program*. The regional head of the federal Forest Service was initially opposed to the *Program* but has become an ally of the plan.
- The Forest Service and raion now recognize that recreation is an important component of forest planning, not just timber extraction.

Indicators of Sustainability

Glazyrina stated that without funding from ESD or other foreign donors it would be unlikely that the Regional Department would be able to continue. She did not think the territorial government would allocate funds at this time for operations. To date the department has not developed a plan to continue after current funding comes to an end. There is hope that it will be funded to work on the second phase of the World Bank's forthcoming GEF project. The department was involved with the first phase.

Concerns and Recommendations

Glazyrina noted that the *Comprehensive Program* is currently used only in regard to specific projects that ESD funds, and that no strategy exists for implementing the *Program* on a more global basis throughout the territory. She did state that the *Comprehensive Program's* goals would be used with the GEF project.

Recommendation If the Regional Department is to be sustainable, it must become integrated into the territory's governmental structure. As part of ESD's work at developing an exit strategy for the project, it should look at working with Chita officials to start funding the regional office as well as developing its capability to work on the GEF project.

Recommendation For the *Comprehensive Program* to have a long-lasting impact on the region, its policies and recommendations should be incorporated into the government's overall activities. The Regional Department should be encouraged to develop a strategy and adopt a policy that would work toward the *Program's* overall implementation rather than just toward specific ESD-funded projects.

B Buryat Regional Department on Lake Baikal

Departmental Goals

The Buryat Regional Department on Lake Baikal in Ulan Ude is currently set-up as an NGO. The department is responsible for implementation and GIS work on the model project being conducted in the Buryat Republic. The department is also doing contract GIS work for Buryat Republic and raion government agencies.

Advantage of Having a Buryat Regional Department on Lake Baikal

Vladimir Baranikov of the Republic of Buryatia's Ministry of Architecture and Construction stated that his office has been working closely with the Baikal Regional Department and that the *Comprehensive Program* has been taken into consideration in the department's planning efforts. He said the *Comprehensive Program* should have a stronger economic development component than is now the case. He also noted that his department has signed a joint agreement on environmental protection with the Baikal Regional Department on Lake Baikal and the Buryat Committee on Rational Land Use to protect the Kabansk Raion. The project in the Kabansk Raion is designed to assist in refinement of the *Comprehensive Program* in a complex raion demonstrating the process, procedure, and feasibility.

Baer Raldin, Director of the Buryat Republic's Land Use Committee, was involved in writing the *Comprehensive Program* and is supportive of it. He stated that ESD's work in the Okinsky Raion has been successful in enhancing traditional land use, agriculture, and natural resource use. Raldin stated that central planning is not appropriate for the raion, and considerable land and resources were destroyed as a result of it. Going back to traditional grazing and land-

use activities of the Buryat people is good both for the villages and the environment, at least in Raldin's opinion. In particular, Raldin is pleased with the reintroduction of the reindeer to the region. They had vanished in the 1960s and are an important part of traditional life in Okinsky. He feels that the *Comprehensive Program* is a good model for land use in the Buryat Republic and that since the projects are locally based and implemented, they have a good chance at success.

Baer Gomboev of the Regional Committee on Ecology stated that, since the development of the *Comprehensive Program*, he has found working with the Buryat Regional Department of Lake Baikal useful in better understanding the republic's resources. He feels this is the first step to good planning. Gomboev believes there has been a change in view point about the importance of environmental protection. Contacts with western specialists have been useful as has the high quality equipment and GIS expertise that is now available for the republic to utilize through a recent contract signed with the Buryat Regional Department on Lake Baikal. Gomboev stated that for the Baikal Commission to be effective, there is a need for better coordination and communication between those in Moscow and the Baikal region.

Accomplishments

- ESD commented on three drafts of the Baikal Law pending at various times in the federal Duma and prepared a draft Baikal Law intended for implementation of the *Comprehensive Program*
- Conducted a four-day workshop attended by Russian and American Lawyers. Workshop was devoted to answering the question, "How Can the *Comprehensive Program* Be Implemented through Legislation in the Baikal Region?"
- As part of Kabansk Raion refinement of *Comprehensive Program*, created 19 monofactor thematic-layer base maps in GIS form for land-use planning
- Assisted in refinement of the proposed Okinsky Raion Natural Anthropological Reserve and National Park, including development of cultural and resource maps
- Established a citizens' advisory committee for Kabansk Raion
- Developed GIS database of cultural and historic monuments and buildings in Kjakhta and created thematic GIS map of pollution sources threatening these sites
- Coordinated public participation and public surveys for Kabansk and Okinsky projects
- Coordinating activities with federal, oblast, and raion officials including Ministry of Construction, the Buryat Committee on Land Use, and the Regional Committee on Ecology

Indicators of Sustainability

The Buryat Regional Department on Lake Baikal has begun to do contract work for republic and raion government agencies. The department has contracted to do a land valuation map for Kabansk and has signed an agreement with the Committee on Ecology to assist it with its GIS work. This contract will provide a monthly income to continue the regional department's work.

Concerns and Recommendations

Recommendation It would be useful for USAID's Rule of Law Project to work with the Chita Baikal Regional Department and Buryat Regional Department on Lake Baikal to explore options for legal implementation of comprehensive land-use planning

8 Sustainable Forest Management and Manufacturing Project

Project Goal

Create a sustainable forestry development program within the Lake Baikal region consistent with the *Comprehensive Program*

Accomplishments

- Developed data base of forest resources
- Identified potential Russian and American enterprises interested in joint ventures
- Prepared detailed site evaluations for six to ten locations in the Baikal region for harvesting and manufacturing
- Assistance with scheduling and conducting exploratory trips for joint ventures
- Facilitation of discussions and negotiations between possible joint venture partners
- Employed a Russian lawyer to research regulations of trade and joint ventures and inconsistency in "Sanitary cutting" law in Republic of Buryat
- ESD's Russian project director has had training in sustainable forestry in the United States
- In cooperation with Wisconsin's Department of Natural Resources, developed advisory information on fire prevention, reforestation, and ecosystem restoration practices
- Developed and distributed a coloring book on forest fire prevention to schools in the Buryat Republic
- Monitored compliance with forest harvest performance standards of *Comprehensive Program* for BAFCO harvest area in Buryat Republic

Indicators of Sustainability

The sustainable forestry program does not currently have a sustainability plan for continuation of activities past the lifetime of the ESD project. It may be worth considering a fee to be paid from joint ventures, based on amount of timber cut, to support the sustainable forestry program. A logging concession could also contain provisions for compliance monitoring and restoration paid for by the joint venture. ESD should urge the Buryat forestry authorities to continue the project after ESD leaves, with the principles of sustainable forestry institutionalized within proper regional authorities. In its related work on environmental assessments of potential joint ventures for OPIC, ESD has recommended deposits to assure business compliance.

Concerns and Recommendations

Taxes charged for cutting by the national Forestry Services offer incentives for choosing selective cutting versus clear cutting with the selective cut fee being three times less than clear cutting. The Forest Service does not actively promote this policy to forestry cutting businesses. ESD's Sustainable Forestry program is in the position to promote both the economic and environmental benefits of selective cutting to both joint ventures and Russian timber cutters.

Uncontrolled fires are having considerable impact on the ecosystems throughout the Lake Baikal region, so coordinated efforts in fire prevention and control are needed. Another serious impact in many areas is caused by improperly designed and maintained access roads. ESD strongly agrees that fire and road building issues are two of the highest priorities of sustainable forestry in the region.

Recommendations ESD may want to consider offering seminars on sustainable forestry practices to Russian timber cutters, Federal and Oblast forestry employees, and others associated with the forest industry. This seminar could highlight the performance standards in the Comprehensive Program, information and techniques developed by the Wisconsin Department of Natural Resources, the economic benefits of selective cutting, reforestation and forest fire prevention. The performance standards regarding prevention of forest fires should be expanded to include provisions for joint ventures to contribute to forest fire prevention and control.