

DEVTECH phere

DEVTECH SYSTEMS, INC.
Autumn 2002

DevTech established the Center for Applied Studies in Economics (CASE) in 1998. The purpose of CASE is to facilitate learning and sharing of knowledge from the real world, policy-oriented consulting, and research activities performed by DevTech staff and associates. CASE has held a number of brown bag luncheons with invitees from USAID, the World Bank, and the International Monetary Fund, along with DevTech staff and other colleagues. To date, we have published 10 CASE Studies on issues ranging from techniques for fiscal reform to country studies. The latest CASE Study covers the topic of pollution charges and energy taxation in Central and Eastern Europe. You can find and download CASE Studies at <http://www.devtechsys.com> under Publications/CASE.

If you are interested in CASE and would like to attend one of our CASE brown bag luncheons, or if you have an idea for future research, please contact Mark Gallagher at mgallagher@devtechsys.com.

DON'T LOSE SIGHT OF THE ENVIRONMENT

Sustainable Development in Recovering Countries

The political landscape has changed significantly in several African and Asian countries with the advent of the new century. Countries that have been in longstanding civil wars are now beginning to heal and rebuild. Afghanistan and East Timor present some good examples of the huge challenges that multilateral and bilateral aid agencies and other donor organizations face in assisting these countries' renaissance and reconstruction efforts. The number of problems that must be identified, evaluated, and addressed with sustainable solutions is truly staggering. In the long term, addressing poverty, increasing opportunities for education, and spurring economic development will likely be among the priorities. However, it is crucial for all involved not to lose sight of the environment in such situations, for without including environmental concerns in the planning and implementation process, the likelihood of long-term sustainability is minuscule.

ENVIRONMENTAL ELEMENTS IN NATION-BUILDING

There are multiple levels of concern regarding environmental issues in Afghanistan and East Timor. To ensure long-term success, donors and the countries with whom they work, must:

- Evaluate and address the environmental problems subsequent to the wars each country faced, including demining and unexploded ordnance (UXO) removal, redeveloping water and wastewater infrastructure, and addressing deforestation and soil erosion issues
- Develop an environmental and natural resource management policy, legal, and regulatory framework.
- Create and build institutions to develop and implement the framework.
- Train staff in managing these complex issues.
- Monitor and evaluate the ongoing near- and medium-term development activities currently being undertaken to ensure that they maximize positive and minimize negative environmental impacts.

Continued on page 2 ⇒

Address Problems Associated with War

The use of landmines in Afghanistan during the Soviet invasion and subsequent occupation in the late 1970s and 1980s, and their subsequent use during the civil war in the 1990s, is well documented. In some quarters, Afghanistan is considered to be one of the most heavily mined countries in the world. Reportedly, 70,000 hectares of land remain contaminated by mines and UXO. A study by the Mine Clearance Planning Agency under the auspices of the Mine Action Programme in Afghanistan, published in December 1999, revealed that, at that time, the mined area consisted of 61 percent grazing land, 26 percent agricultural land, 7 percent roads, 4 percent residential areas, and 1 percent irrigation systems. Abandoned land-mines are an environmental issue for Afghanistan in the same way that abandoned hazardous waste is an environmental issue for the United States' Superfund: They negatively affect the health and safety of the local populace.

Not knowing where it is safe to walk or drive makes it difficult to work on such activities as reforestation and erosion control, and, of course, to put animals to pasture or to farm an area. Until an area is cleared of hazards, the level of threat to local people is extremely high. In addition to the physical threat they create, abandoned landmines also pose a significant hindrance to development activities in Afghanistan, impeding the growth of farming, grazing, and forestry activities and contributing to higher levels of unemployment and lower levels of food and fuel security. Thankfully, demining and UXO removal activities have already begun in Afghanistan and several hundred square kilometers have been cleared. Unfortunately, tens of thousands of square kilometers remain uncleared.

In addition to the problem of mines in Afghanistan, infrastructure in both Afghanistan and East Timor has been almost totally destroyed as a result of years of war and neglect. Roads, power grids, irrigation, and water and wastewater facilities are, for all intents and purposes, not operating. Getting this infrastructure functional again is one of the early priorities of both the donors and the new governments.

Sustainable development cannot occur if the needs of both the people and their environment are not quantified and qualified.

Develop a Policy, Legal, and Regulatory Framework

As of August 2002, neither Afghanistan nor East Timor had in place a significant framework to manage environmental and natural resource issues. East Timor does have a legacy of Indonesian regulations that have been held over, but there are significant questions about their appropriateness and usefulness. Afghanistan has essentially been ungoverned for more than 20 years and has virtually no legal or regulatory framework in the environmental area or, for that matter, any other area.

Experience in the west tells us that the lack of a framework for managing environmental issues has caused significant environmental problems over time. Witness the legacy of hazardous waste management in the United States and the billions of dollars spent in *post facto* cleanup. Without a framework for all aspects of the environment, Afghanistan and East Timor face the possibility of causing further damage to their already stressed ecosystems.

East Timor, especially, has a golden opportunity to protect a natural resource that not only provides food for the local popula-

tion but also is likely to generate significant financial return from foreign sources: its coral reefs. The reef system recently was acknowledged in a CNN report as one of the last "pristine" areas for diving in the world. Now that the world's newest country is becoming safer, adventurous divers will be coming to visit. If the Timorese are able to get a regulatory framework in place soon enough, they have a strong possibility of preserving their reef systems in their present state and using these systems both to generate foreign revenue and to serve as a fishing ground for the local people who have relied on them historically for sustenance and income.

To its credit, the donor community recognizes the importance of developing this framework and is working to assist the countries in this area.

Create and Build Institutions

Along with the lack of regulatory framework, neither Afghanistan nor East Timor currently has any functional institutions that manage environmental issues. In the recently published Interim National Strategy, Afghanistan identified which ministries will have some aspect of environmental or natural resource management in their portfolios. However, no single ministry is charged with managing the overall natural resources portfolio. (Happily, in the summer of 2002, the new Transitional Authority identified the Ministry of Irrigation and Environment to manage all environmental issues). A recent Joint Assessment Mission report on East Timor from the World Bank identified the need for water and wastewater infrastructure development and for the reinitiation of solid waste collection. There was no discussion of creation of institutions to support these efforts.

Without environmental institutions, environmental and natural resource issues are far in the back of people's minds, and abuses often occur. Forests may be cut without any thought to sustainability, water and wastewater systems may be misused, and pollution of surface water and groundwater resources can increase rapidly because of a lack of solid and hazardous waste management systems. Again, experience tells us that even well-intentioned development activities sponsored by donors can have unintended negative environmental consequences.

Both Afghanistan and East Timor have significant problems in their forestry sectors. Afghanistan's forest cover reportedly has fallen to less than 2 percent of the total land area, down from 3.6 percent in the earlier part of the twentieth century. Much of this has been a result of over-harvesting. East Timor's forests, too, are in decline as a result of previous commercial logging activity, collection of firewood, shifting agriculture, and defoliation by the Indonesian military. Only a capable and informed local institution that has a stake in transforming the country can meet these challenges.

Environmental institutions can, and should, play a crucial role in helping to make development efforts sustainable. Their policies and regulations contribute to the effective and efficient management of natural resources in ways that most benefit the users and to the identification and management of environmental health issues such as inappropriate disposal of solid and hazardous waste and lack of water or wastewater management systems.

Once established, these institutions will begin developing the necessary skills and regulatory capacity to manage environmental issues. They also will moni-

tor impacts of development projects (especially infrastructure projects). Their role in identifying modifications that could increase overall project effectiveness or minimize overlooked negative environmental impacts is crucial.

Train Staff

Institutions need skilled staff to manage and implement programs. Reestablishment of a civil service is an important aspect of donor activities in both Afghanistan and East Timor. Staff will need training not only in the proper operation of a government bureaucracy but also in how policy is developed, how regulations are written and implemented, and, finally, how to interact with the regulated community and with citizens. Staff at environmental institutions also will need training in various environmental and natural resource technical areas in order for them to function effectively. Much of the training can be undertaken in country. However, in some cases more extensive training or education may be warranted. Series of courses can be developed for different levels of staff; implementers would focus on acquiring one set of skills while managers would be on a different track. This training can be performed in a continuing-education framework after some minimum orientation to civil service and the organization. Continued training (part-time) probably would be necessary over several years before the civil servants would be well equipped to perform their jobs.

In several cases it will become clear that one staff person or another has the ability to function at a higher technical level than that for which they have education. These people should be identified and offered the possibility of technical training or higher education outside the country.

Developing an effective civil service is the work of years if not decades. Selection and

training of the staff are crucial if they are to function effectively and contribute to the ideal of sustainable development.

Maximize Positive and Minimize Negative Impacts

Currently, both Afghanistan and East Timor are emerging from what was essentially a disaster-focused relief effort. Thus, the donors are providing (among other things) food aid, medical aid, and assistance with rehabilitation of crucial infrastructure. This focus is already beginning to change, however, as the national governments of Afghanistan and East Timor work with the donor community to evaluate their priorities. Rehabilitating infrastructure is a key activity in both countries. This is in parallel with establishing the rule of law, working with communities to include them in the development process, and restarting the virtually nonexistent local economy. All of these activities will expand for a number of years as Afghanistan and East Timor start their long road to developed-nation status.

As development activities evolve, it will be necessary to keep a close watch on projects starting from the time of their development so that environmental impacts can be evaluated. Having national institutions in place that are able to competently evaluate and monitor projects can provide significant payback in the form of early identification of problems that can be fixed, or benefits that can be capitalized on, without the higher levels of capital investment often necessary when projects are in the implementation phase.

Evaluating each project for its potential positive and negative impacts can help to maximize benefits and minimize nega-

Continued on page 4 ⇒

tive impacts. Thus, the project has a far better chance of being sustainable in the long term.

CONCLUSION

Extensive (and sometimes bitter) experience has taught us that sustainable development cannot occur if the needs of both the people and their environment are not quantified and qualified during the project design phase and if impacts are not evaluated as the projects are implemented. Accounting for the environment in project design and implementation and assisting in the establishment of local frameworks and institutions to manage environmental issues will substantially support the ideal of sustainable development in Afghanistan and East Timor. Local institutions can play crucial roles in monitoring projects after they have

been completed. They are essential to ensuring sustainability and can play a role in replicating successful projects.

The donor community has taken substantive steps in both of these countries to incorporate environmental concerns in the initial activities of their long-term plans. It is important that they not relegate these concerns to a lower level when budget constraints begin to impact their programs. Without continuing to focus on environmental concerns, donors run a significant risk of preparing and implementing projects that will, in the long run, fail.

— *J.A. Atchue III, CEP, CHMM*
Environment Practice Leader
& Jeffrey Ploetz
Natural Resources Management Specialist
DevTech Systems, Inc.

The DEVTECH Sphere
is published quarterly by
DEVTECH SYSTEMS, INC.

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

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

<http://www.devtechsys.com>

The opinions expressed by our contributors are not necessarily those of DevTech Systems, Inc.

DEVTECH SYSTEMS, INC. 2002

DEVTECH

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